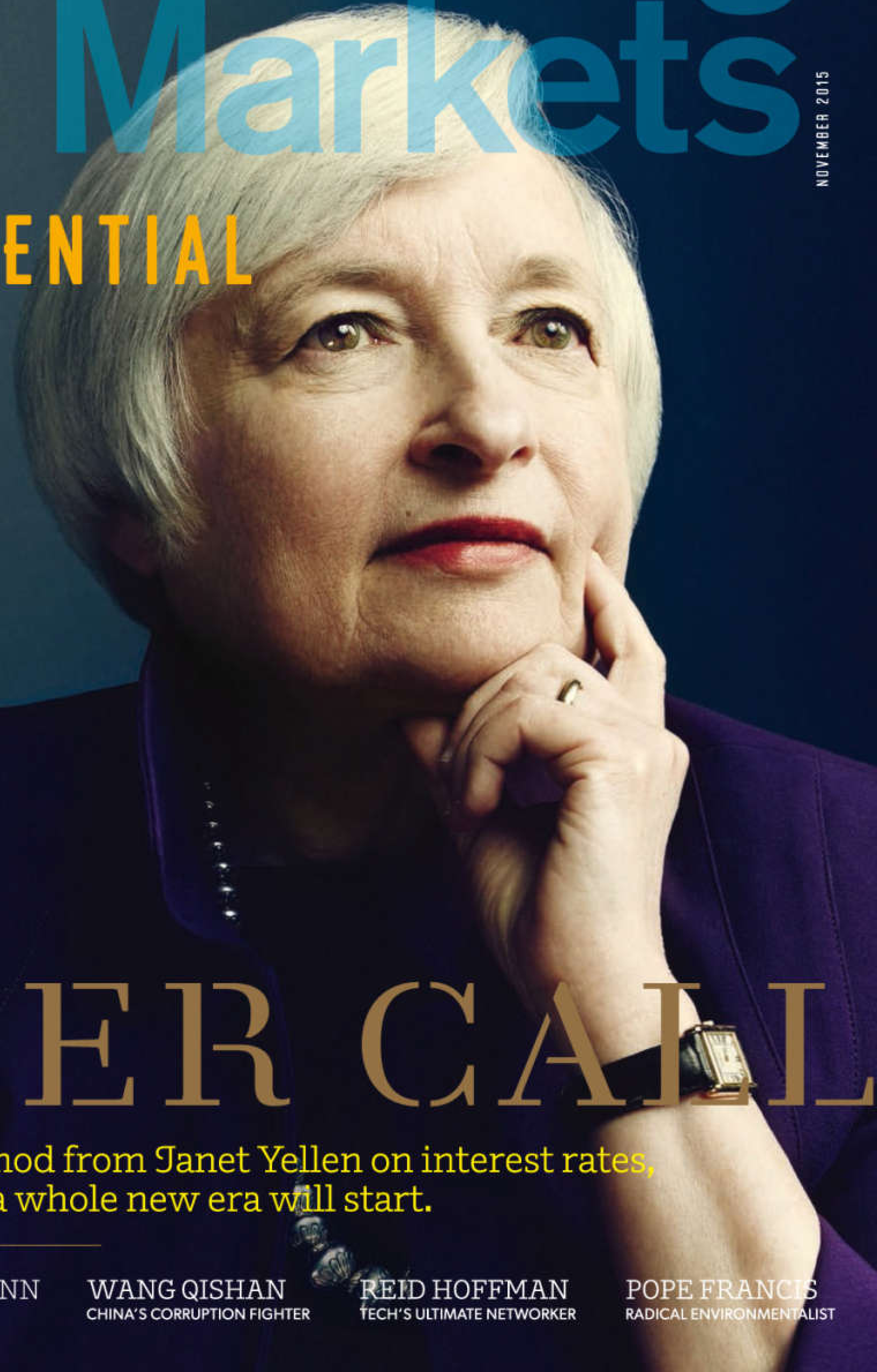
Bloomberg Markets

NOVEMBER 2015

50 MOST INFLUENTIAL



IT'S HER CALL

One nod from Janet Yellen on interest rates, and a whole new era will start.

JORGE PAULO LEMANN
BUFFETT'S FAVORITE DEALMAKER

WANG QISHAN
CHINA'S CORRUPTION FIGHTER

REID HOFFMAN
TECH'S ULTIMATE NETWORKER

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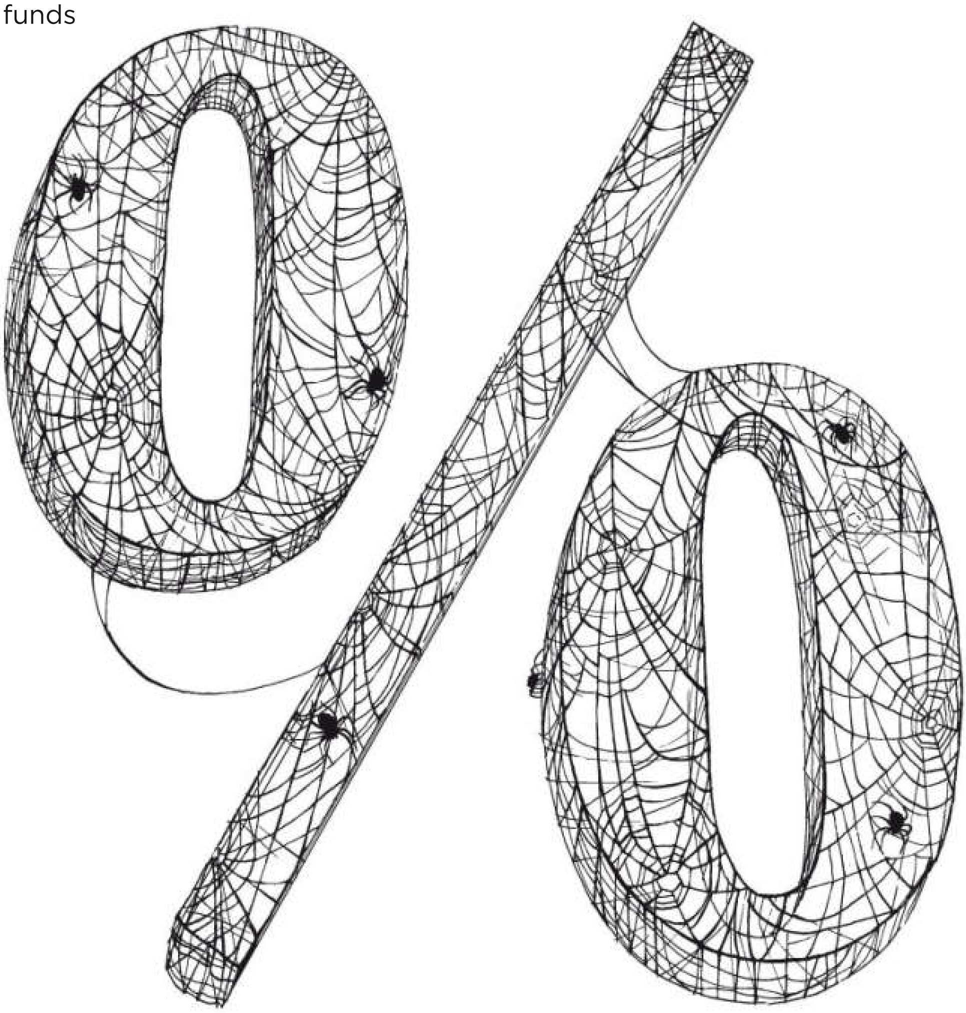

Financial Sector SPDR ETF

Top Ten Holdings*

XLF - FINANCIAL

	Company Name	Symbol	Weight
1	Wells Fargo	WFC	8.62%
2	Berkshire Hathaway B	BRK.b	8.44%
3	JP Morgan Chase	JPM	8.21%
4	Bank of America	BAC	5.92%
5	Citigroup	C	5.60%
6	American Intl Group	AIG	2.78%
7	Goldman Sachs	GS	2.61%
8	US Bancorp	USB	2.59%
9	American Express	AXP	2.31%
10	Metlife	MET	1.93%

** Components and weightings as of 8/31/15.*
Please see website for daily updates. Holdings subject to change.

stocks. Investors cannot invest directly in an index. The S&P 500 Index figures do not reflect any fees, expenses or taxes. Ordinary brokerage commissions apply. ETFs are considered transparent because their portfolio holdings are disclosed daily. Liquidity is characterized by a high level of trading activity.

Select Sector SPDRs are subject to risks similar to those of stocks, including those regarding short-selling and margin account maintenance. All ETFs are subject to risk, including possible loss of principal. Funds focusing on a single sector generally experience greater volatility. Diversification does not eliminate the risk of experiencing investment losses.

ALPS Portfolio Solutions Distributor, Inc., a registered broker-dealer, is distributor for the Select Sector SPDR Trust.

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A REVOLUTIONARY INVESTMENT STRATEGY TURNS 10

One smart beta fund that focuses on fundamentals—not market cap—celebrates a decade of success

Invesco PowerShares is a provider of smart beta ETFs, which bridge the gap between passive and active fund management. Research Affiliates, founded by Rob Arnott, is a leader in innovative indexing and asset allocation strategies. When the two announced a landmark partnership in the fall of 2005 to launch an ETF tracking the FTSE RAFI US 1000 Index, the reception from the traditional, capitalization-weighted index community was less than warm, to say the least.

"It was considered heresy in the indexing church, if you will," recalls John Feyerer, Director of Equity ETF Product Strategy at Invesco PowerShares, a global ETF leader. "It was met with criticism and skepticism. Someone said, 'You can't call that an index.' Another claimed, 'There's nothing new here; this is just value investing.' Even the founder of one distinguished investment management company weighed in with his own observation: 'This is just witchcraft.'"

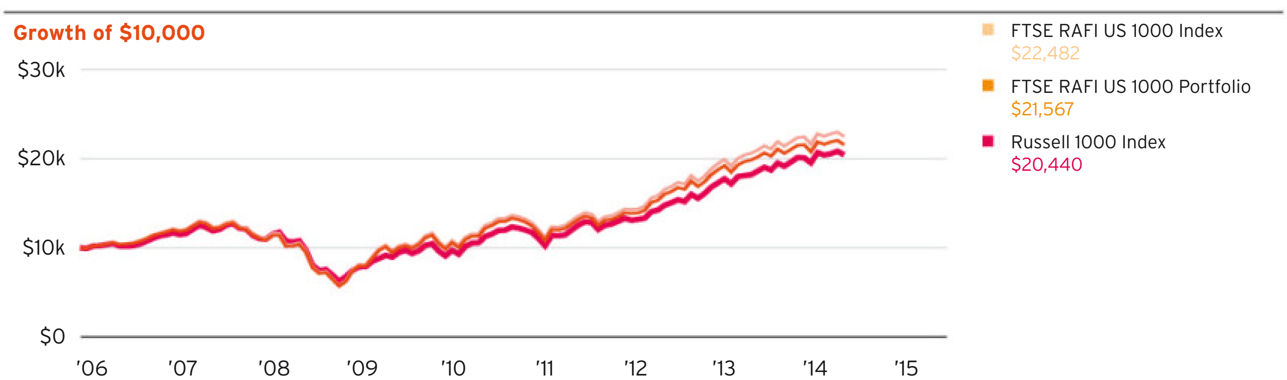
Times have changed. Now, as the official 10th anniversary of the launch of the PowerShares FTSE RAFI US 1000 Portfolio (ticker: PRF) on the New York Stock Exchange approaches, PowerShares and Research Affiliates are continuing to grow their strong partnership.

For the as of yet unconverted, PRF is an ETF that tracks an index comprised of the largest 1,000 U.S. companies based upon measure of fundamental size—not weighted on traditional market capitalization, but rather on fundamental measures of company size such as dividends, book value, sales and cash flow. The index underlying PRF was launched by Research Affiliates on Nov. 28, 2005, partially in response to the abysmal performance of the S&P 500 and other benchmark indexes between 2001 and 2002 resulting from the burst of the technology bubble that decimated investor portfolios. It was envisioned as a way to mitigate the structural drag on performance created by market capitalization, which, driven by the fact that these indexes weight stocks based upon current share price, will overweight stocks that prove to be overvalued and, conversely, underweight those that prove to be undervalued.

The question Research Affiliates asked was a simple one: How much sense does it make to allocate more weight to a company just because its valuation has expanded and its share price has gone up?

From the outset, PowerShares' partnership with Research Affiliates was one of matching ideologies. "When Rob Arnott's index methodology was introduced to us, we started a conversation, and we said, 'This fits squarely within our foundational belief systems about investing,'" Feyerer says. "It established a strong partnership early on because we had so many common beliefs. We were kindred spirits, if you will."

Although the concept didn't have a name at the time, Feyerer and his colleagues at Invesco PowerShares called it "intelligent



Data beginning Fund inception and ending June 30, 2015. Fund performance shown at NAV.

indexing," believing that it was built on the idea that an index doesn't have to be limited to a simple, traditionally weighted construct. The issue they and their partners at Research Affiliates had with cap-weighted indexes is that when investors use them as the basis for an investment strategy, they will own too much of those stocks that ultimately prove to be overvalued, and too little of those stocks that prove to be undervalued—a tough lesson learned from the technology bubble.

"What appealed to us about Research Affiliates was that they had envisioned this different way of creating an index," says Feyerer, "one that maintained many of the benefits that investors look for—low cost, broad representation, significant investment capacity, transparency and liquidity—and anchored constituent weight on measures of firm size that aren't linked to share price and systematically rebalancing. The simplicity of it was striking."

Underlying this new, simple way of looking at indexing was deep research—going as far back as 1962. And what Arnott and his research team found was that as long as constituent weight is severed from price and the portfolio was rebalanced, investors could potentially benefit.

One critical element of smart beta and fundamental indexing that often gets overlooked is the importance of systematic, disciplined rebalancing. As Feyerer points out, "It is not just about anchoring constituent weight on something other than price, but also about rebalancing the portfolio. In contrast, there is no inherent rebalancing mechanism with market capitalization-weighted."

PRF can be especially compelling against a market backdrop in which growth has outperformed value, providing a clear proof point that the FTSE RAFI Index strategy is not just a value index and can benefit investors across market cycles even when value is not in favor.

What's more, as of July 1 of this year, 37 percent of the flows into ETFs have been into alternatively weighted strategies, bolstering Feyerer's hopes—and those of the whole financial sector.

"This anniversary probably means as much for the industry as it means for us," he says. "Proof points around smart beta refuted what was said about it 10 years ago. This truly is a watershed product for the industry and a significant opportunity for investors."

— Tom Connor

HOW MUCH SENSE DOES IT MAKE TO ALLOCATE MORE WEIGHT TO A COMPANY JUST BECAUSE ITS SHARE PRICE HAS GONE UP?

Germany's Energy Transition Gathers Pace

The country's ambitious timetable for the transition to a post-carbon energy age is also generating investment opportunities

KRISZTIAN BOCSI/BLOOMBERG

July 25 is a day firmly lodged in the minds of renewable energy advocates across Germany. On that day, Germany broke its own renewable energy supply record, with renewable sources meeting 78 percent of the day's energy demand (up from the previous May 2014 record of 74 percent). According to data provided by the Fraunhofer Institute for Solar Energy Systems ISE, strong winds brought a dramatic increase in wind power generated, allowing conventional coal and gas-fired power plant delivery to be significantly reduced.

August saw another important energy milestone achieved, with the installation of the world's most powerful offshore wind converter station, the 916 MW DolWin beta, off the island of Norderney in the North Sea. Housed on a massive offshore platform, the 320 kilovolt converter station is capable of powering more than a million households with clean energy. Weighing in at around 23,000 tons, the soccer pitch-sized converter station is part of the DolWin 2 project to connect offshore wind farms in the DolWin cluster with the domestic power grid.

The DolWin 2 project is an integral part of Germany's ambitious *Energiewende* (energy transition) agenda to establish the country as one of the most energy-efficient and environmentally compatible economies in the world. Like some other German words that have entered the global lingua franca—Mittelstand and INDUSTRIE 4.0 spring to mind—Energiewende is a term that has come to define a very specific approach to the matter at hand.

An energy revolution in everything but name, the goals of the Energiewende are nothing if not ambitious. Greenhouse gas emission levels are to be cut by 40 percent of 1990 levels by 2020, with the renewable-energy share of power generation increased to 40 to 45 percent and 55 to 60 percent by 2020 and 2035, respectively. Nuclear power is to be completely phased out by 2022.

Although the July record represents just one day of renewable energy delivery, it nevertheless provides an important marker of the energy shape of things to come and of the progress made to date. A similar energy statement of intent was recorded for the period July 1–Aug. 5, when solar and wind energy each outstripped nuclear power generation: This represents a first for solar power, with wind having already trumped nuclear energy share on a number of occasions.

The interim Energiewende report card makes for impressive reading. In 2014, renewable energy met almost 28 percent of gross electricity demand. Greenhouse gas emission levels were reduced by almost 25 percent for the period 1990 to 2012—more than in any other EU member state.

Greenhouse gas emission levels were reduced by almost 25 percent for the period 1990 to 2012—more than in any other EU member state.

The country is fully on track to meet the schedule of its 10-Point Energy Agenda, putting in place a raft of key policy measures—including a revised Renewable Energy Sources Act that provides a solid basis for competition-based energy promotion—supporting the energy transition.

Moreover, the energy transition is opening up important new global market opportunities, as the world seeks to address the challenges of future energy provision. Replacement and bridging energy technologies, like the engines being produced for a new gas-fired thermal power plant in the city of Kiel, north of Hamburg, are indicative of the innovative technology twists and turns the energy transition is taking. The lighthouse cogeneration project, which makes use of 20 gas engines capable of supplying total output of 190 MW of electrical energy and 192 MW of thermal energy, also represents a step toward a different kind of energy provision market. The marketing of balancing energy and power-to-heat integration during low electricity price spells ensures both energy supply and provider cost-effectiveness while effectively offsetting wind energy fluctuations.

According to Germany Trade & Invest's Energy, Environment & Resources Director Thomas Grigoleit, the goals set out in the Energiewende provide a framework for sustained growth. "As a technology test bed for renewable energy solutions, Germany is showing the way forward to new and profitable energy delivery models and market opportunities. Companies who participate in the country's energy transition can secure an early competitive advantage in the coming global energy markets."

In its scope, depth and vigor, Germany's model appears to be an energy plan for all seasons. — *David Gould*

November

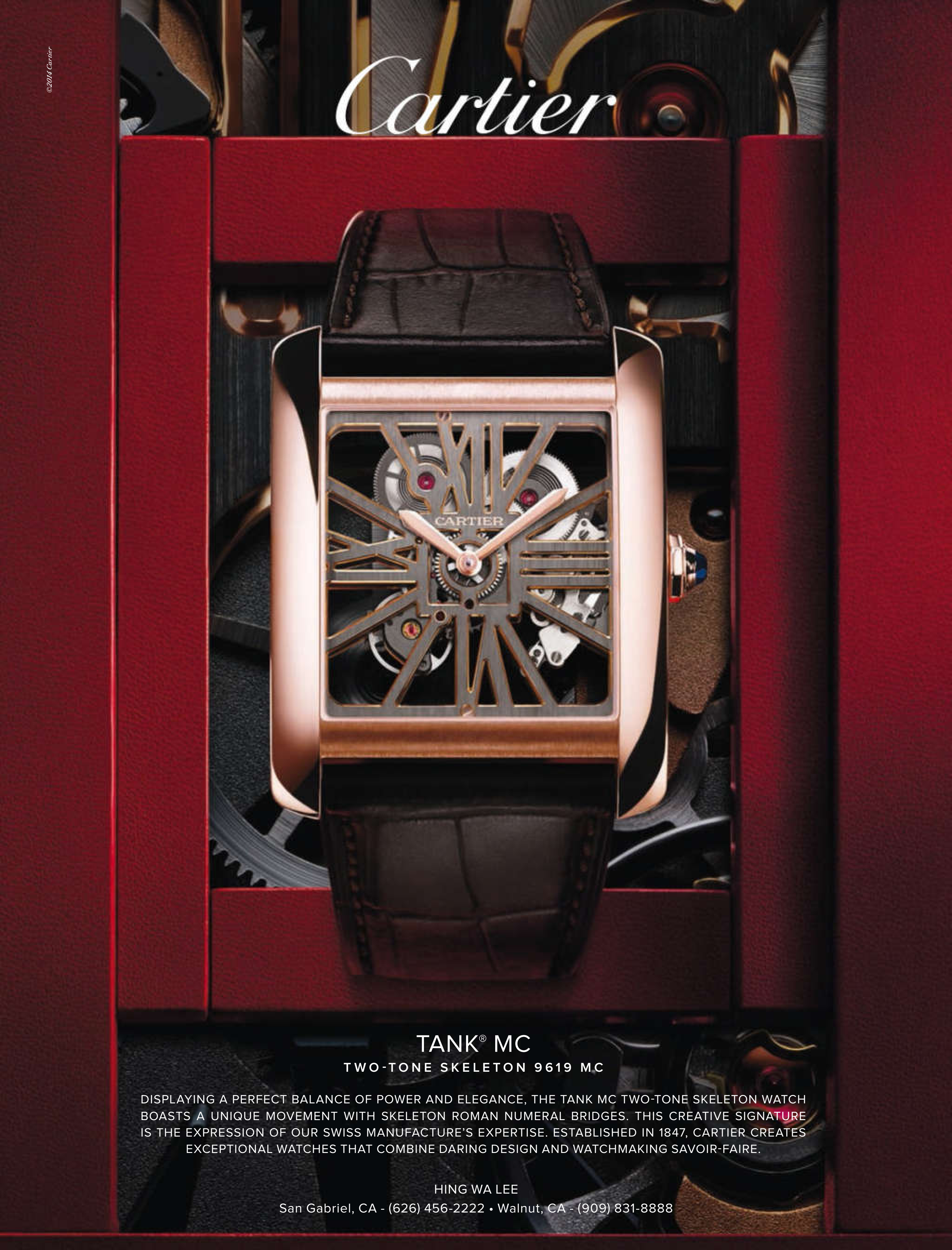
volume 24 / number 10

‘In China, we talk about this concept called *guanxi*; it means building relationships—Reid is a master at it.’ *Victor Koo, CEO of Youku Tudou, page 54*

FEATURES

The
50 MOST INFLUENTIAL

PHOTOGRAPH BY **ROBERT MAXWELL**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November

108

FEATURES (CONTINUED)

On street corners within the few, closely controlled, government-sponsored Wi-Fi zones, Cubans by the hundreds sit and stand all day.

COMMENTARY

AGENDA

STRATEGIES

ON THE COVER
PHOTOGRAPH BY **JOE PUGLIESE**

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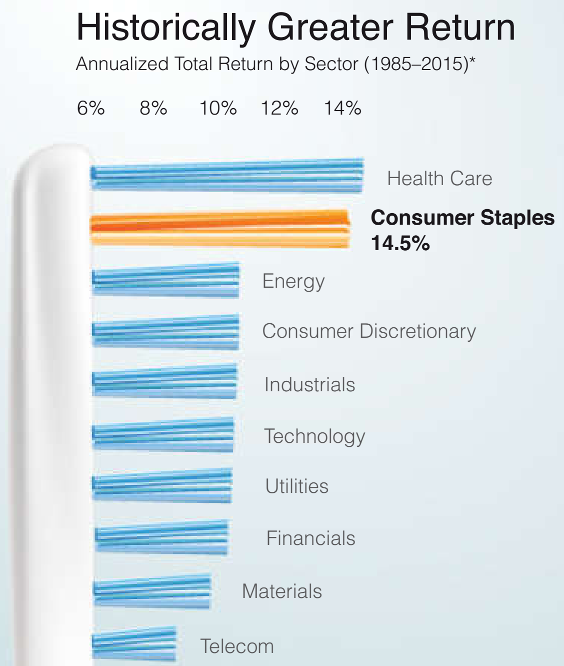
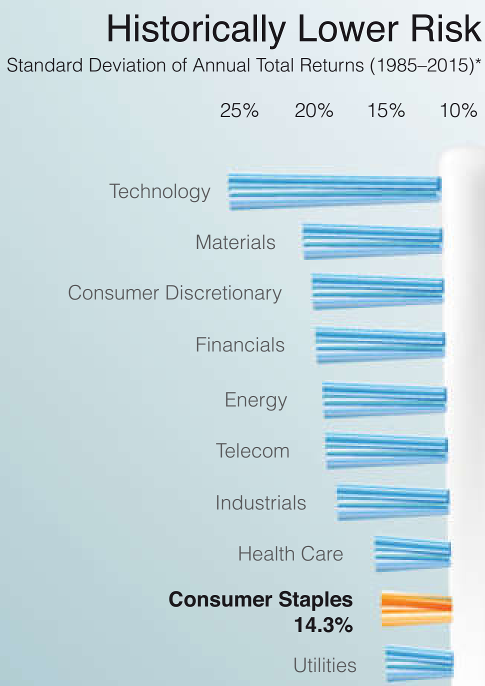
PHOTOGRAPH BY **FRANCO PAGETTI**

WHY CONSUMER STAPLES SHOULD BE ON YOUR SHOPPING LIST.





Historically strong performance and lower risk aren't boring. The consumer staples sector has delivered relatively low risk and high return, plus dividends, through steady demand in up and down markets over the past 30 years.*

Stock up on opportunity

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Before investing in any mutual fund or exchange-traded fund, you should consider its investment objectives, risks, charges, and expenses. Contact Fidelity for a prospectus, offering circular or, if available, a summary prospectus containing this information. Read it carefully.

Past performance is no guarantee of future results.

Because of their narrow focus, sector funds tend to be more volatile than funds that diversify across many sectors and companies.

*Source: Haver Analytics, Fidelity Investments, as of July 31, 2015. Past performance is no guarantee of future results. Sectors are defined by the Global Industry Classification Standard (GICS) and are based off the top 3,000 U.S. stocks by market capitalization.

Annualized Total Return by Sector (1985–2015): Health Care (14.93%); Consumer Staples (14.47%); Energy (11.15%); Consumer Discretionary (11.13%); Industrials (10.94%); Technology (10.73%); Utilities (10.49%); Financials (10.41%); Materials (10.04%); Telecom (9.16%).

Standard Deviation of Annual Total Returns (1985–2015): Technology (25.45%); Materials (20.73%); Consumer Discretionary (19.27%); Financials (19.26%); Energy (19.08%); Telecom (18.93%); Industrials (17.72%); Health Care (15.93%); Consumer Staples (14.32%); Utilities (14.02%).

Editor's View

It's All in the Preparation

JANET YELLEN IS ready, as she always is. The U.S. Federal Reserve chair is famous for the studious way she prepares for everything, whether it's testimony in Congress, an academic lecture, a meeting, or an interest rate increase. There's no single definition of influence, but having the power to sway the entire global economy and usher in a new era with a single quarter-point decision—it didn't happen in September, but Yellen strongly hinted she expects it to come this year—is a good place to start.

> On Yellen's bookshelf sits a framed photo of her standing next to a poster with the slogan 'Keep Calm and Carry On.'

In this issue, our fifth annual list of the world's 50 Most Influential people in finance, you'll find bankers, CEOs, heads of state, entrepreneurs, money managers, thinkers, and activists. These folks weren't born influential. Through a combination of intelligence, persistence, and circumstance, they made themselves that way. In a sense, Yellen, No. 1 on our list, has been prepping her entire life for her time in the spotlight. It's that thoroughness that has enabled her to remain serene amid the swirl (page 34). On a bookshelf in Yellen's office at the Fed sits a framed photo of her next to a poster with the famous British credo from World War II: "Keep Calm and Carry On."

The lives of our Most Influential are full of formative moments. For LinkedIn co-founder and venture capitalist Reid Hoffman, it was an encounter with a bully at a New England prep school (page 54). Brazilian billionaire and dealmaker Jorge Paulo Lemann honed his steely resolve as a professional tennis player (page 66). And Wang Qishan, China's anti-corruption chief, found fortitude in a cave—yes, a cave—while exiled during the Cultural Revolution (page 88). His lairmate all those years ago was Xi Jinping, now the country's president—and Wang's boss.

Ron Henkoff

EXECUTIVE EDITOR

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Letters

"Selling the Blockchain to Wall Street"

OCTOBER 2015

I would like to commend *Bloomberg Markets* for an excellent article on Blythe Masters and the blockchain. The writing offered valuable insights on what is turning out to be an exciting frontier space, while the involvement of Blythe Masters always lends much-needed gravitas.

WILIAM THAM
Assistant vice president, Bank of Tokyo-Mitsubishi UFJ
Singapore

Considering the trillions of dollars that appear as memorandum items in financial statements, the bailout, and now a bright idea to use underlying technology for secure transactions on distributed servers that clearly aren't secure, I am a bit surprised and disappointed this article hit paper and ink. This sounds like buzz and another bad idea that will either die or be used—with the institutions involved hiding losses from public view until a bailout is required.

DALE TENNISON
Minneapolis

TWEETS

Loren Siebert, a software engineer, investor, and entrepreneur in the San Francisco Bay Area, had this to say about "Who Wants to Start an ETF?" (October 2015):

Ben Kizemchuk, a wealth manager in Toronto, shared the story as well:

INFORMATION FOR READERS

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TOP INTERNATIONAL BUSINESS TRAVEL HACKS

1 Own a private aisle

On planes with a 3-3-3 or 3-4-3 seat configuration choose either aisle seat in the middle section to reduce by half the chances you'll have to exit your seat so others can get out (or that you'll be climbed over by your seatmates).

2 Go paperless

Using Air Canada's mobile app for advanced check-in and storing your boarding pass just makes sense. And with all long-haul planes offering seat-back power ports, your laptop will never run out of juice.

3 Left is right

On return trips ending in the U.S., you can clear customs in a matter of minutes in major Canadian airports. You'll be able to walk right out of the airport upon landing in the U.S. Choose lines to your left—they move faster, studies show.

4 Routine decisions

Impose a measure of control over the chaos of travel by establishing routines. Always put your money, keys and phone in the same place in all hotel rooms. And always sleep either closest to the window or the bathroom. Rely on your own alarm to wake you up.

5 Rest easy

Air Canada's Boeing 787 Dreamliners feature lights that fight jet lag, and International Business Class offers fully lie-flat seats, ensuring you're rested and ready for business when you land.

FLY TO ASIA OR EUROPE THROUGH TORONTO

Air Canada's Premium Economy seats are larger than normal, its renovated Business Class lounge is just steps from the international gates—and you can earn miles in the Star Alliance frequent flyer program of your choice. Plus, on return, you can avoid long lines by quickly clearing U.S. Customs.

AGENDA

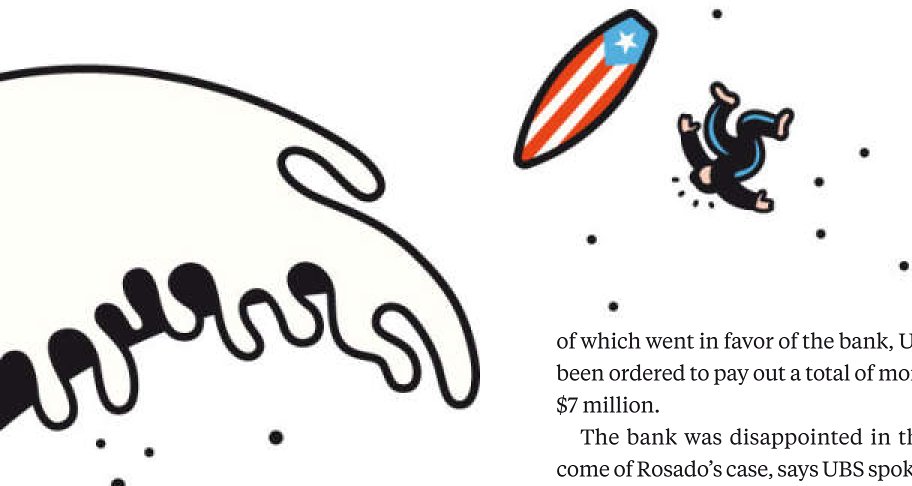
UBS's Puerto Rico Wipeout

The Swiss bank spread the pain of the island's debt crisis to its clients with a hard sell on risky bond funds.

UBS HAD A GOOD thing going in Puerto Rico. The Swiss bank served as an adviser to the commonwealth's Employees Retirement System, led the underwriting of a $2.9 billion bond issue for the pension agency in 2008, and then stuffed half of those bonds into a family of closed-end mutual funds it sold exclusively to customers on the island. It collected fees at every step.

Now, with the U.S. territory in the downward spiral of a government debt crisis, it's all coming apart for UBS, long the biggest retail brokerage on the island. After UBS helped the government dig itself into a deeper hole and put island customers on the hook for the losses that followed, its Puerto Rico saga has become a cautionary tale of how risks can multiply.

Angry customers have filed hundreds of arbitration claims with the Financial Industry Regulatory Authority. They're seeking more than $1.1 billion in damages from UBS after huge losses in the tax-free bond funds, sold as high-income investments



that would preserve their capital, and in the bonds themselves. Three of UBS Puerto Rico's five offices have closed since 2010, and nearly 60 of the unit's 140 financial advisers have departed. The bank's retail brokerage market share on the island has dropped to 33 percent from 48 percent over that period.

Retiree Juan Burgos Rosado was 66 in December 2011, when he opened an account with UBS. A month earlier, he had taken a fall from a tall ladder, ending his career rehabbing real estate. Rosado was "the quintessential conservative investor," according to the arbitration panel that heard his case. UBS advised him to move $325,000 from a maturing certificate of deposit into its high-income funds. Rosado invested a further $200,000 in 2012, when he sold a house, and $600,000 more in January 2013, when another CD matured. He tried to sell the funds later that year as they plunged in value. His statements showed they were still worth $450,000, but UBS offered him just $90,000. While most closed-end funds are listed on an exchange, these were not, so clients depended on bids and offers from UBS Puerto Rico to get in or out.

Rosado didn't sell; he went to arbitration and won. In May, the arbitrators wrote in their decision that Rosado was "grossly over-concentrated" in the bond funds, which were unsuitable for a senior with no investing experience. UBS was ordered to pay Rosado $1 million, including $602,000 in damages. With six other arbitration cases decided on the merits so far this year, one of which went in favor of the bank, UBS has been ordered to pay out a total of more than $7 million.

The bank was disappointed in the outcome of Rosado's case, says UBS spokesman Gregg Rosenberg. The claims arbitrated so far are not indicative of how other claims might be decided, says Rosenberg, who's based in New York. "For more than 20 years, investors in UBS's Puerto Rico municipal bonds and closed-end funds received excellent returns." Losses beginning in mid-2013 occurred amid general weakness in municipal bond markets and Puerto Rican debt, the bank says. The funds, which have declined as much as 75 percent from their initial prices, have continued to pay dividends.

The UBS Puerto Rico funds were lucrative for the bank, bringing in hundreds of millions of dollars in fees and commissions. The fund family, which had as much as $8.9 billion in assets in 2009, was designed to be heavily invested in the island's municipal bonds, using borrowed money. By mid-2013, the bonds UBS had underwritten for the pension agency represented more than half of the net assets in five of the funds. The pension agency bonds lost more than 80 percent of their value from when they were issued in 2008 through August of this year. On Sept. 10, Standard & Poor's predicted with "virtual certainty" that the bonds will default.

Putting bonds UBS had underwritten into funds UBS managed would have been forbidden by the Investment Company Act of 1940—if the funds were sold on the mainland. But Congress exempted Puerto Rico when the law was enacted. *Bloomberg Markets* first reported on UBS's activities on the island in 2009. (See "UBS's Puerto Rican Connections," April 2009.)

"UBS made itself a ton of money at the expense of its clients, with these huge conflicts of interest," says Craig McCann, a former senior economist at the U.S. Securities and Exchange Commission who has been hired by investors' lawyers to review more than 200 of the arbitration claims.

McCann, a principal at Securities Litigation & Consulting Group in Fairfax, Virginia, says UBS Puerto Rico sold its fixed-income mutual funds and the pension debt to customers with no regard for diversification or the appropriateness of the risk. "Whether it was a $50,000 account or a $50 million account, systematically UBS put clients into the same securities," he says. "I've never seen anything like it."

The bond funds have landed UBS Puerto Rico in trouble before. In May 2012, UBS paid $26.6 million in fines and restitution and was censured by the SEC, which said the bank had manipulated the prices of the funds in 2008 and 2009. UBS didn't admit or deny wrongdoing.

While UBS settled with the regulators, Miguel Ferrer, then-chairman of UBS Puerto Rico, fought a parallel proceeding that the SEC brought against him—and got his case dismissed. In October 2013, an administrative law judge ruled the regulator had failed to prove its case. She found that the prospectuses and literature describing the funds were accurate. Ferrer, who built what eventually became UBS Puerto Rico, starting with a two-man office 50 years ago, retired in 2014.

Ferrer had championed the bond funds. "What is the problem?" he asked his brokers during a June 2011 sales meeting in San Juan that was recorded. "We have in your accounts almost $1 billion in cash that does

ILLUSTRATION BY **RAMI NIEMI**

Everybody's favorite economic acronym (Brazil, Russia, India, China, and South Africa) should incorporate an "A" for Argentina, according to President Cristina Fernández de Kirchner.

not generate commissions," he said. He touted the high income the funds offered and argued that they were diversified. "You have current yield, and you have a history of good performance. What the f-ck do you want?" The audio recording, first reported by Reuters earlier this year, wasn't used in the SEC case; it's in the hands of lawyers handling the arbitration claims. Ferrer didn't respond to a request for comment made through his lawyers.

Retail investors aren't the only UBS clients who've suffered. So has the pension agency whose bonds the bank underwrote. The debt issue was intended to help rescue a troubled system that was, at that time, underfunded by $10 billion. It actually made things worse, according to a 2010 study prepared for the pension fund by consulting firm Conway MacKenzie. "The $3 billion transaction was inherently flawed, misconceived and speculative as a mechanism to improve the system's funded ratio," it found.

In May, Puerto Rico estimated the fund's deficit versus future obligations had tripled to $30 billion.

José J. Villamil, an economist in San Juan, said in a 2009 interview with *Bloomberg Markets* that the bond deal relied on unreasonable projections of future funding of the pension system to service the debt. "I don't know what they were smoking when they put this together," he said, referring to revenue forecasts in a report by Global Insight, a mainland U.S. consulting firm since acquired by IHS. Jim Diffley, lead author of the report, defends his work. "There were all sorts of disclaimers that these are forecasts and subject to error," he says.

A year after settling with the SEC, UBS hired Villamil to serve as an independent director of 18 of its Puerto Rico mutual funds. So he's now on the payroll of an affiliate of the underwriter, but Villamil still says that it was a terrible idea to issue the pension bonds in the first place. "I think it was a huge mistake."

DAVID EVANS

Argentina Surprise

South America's bad-boy economy has an unexpected bright spot: its surging stock market.

IS THE ARGENTINE stock market a safe haven?

That might sound ludicrous, especially in light of the cruel summer investors endured as China's devaluation triggered a worldwide selloff in equities. But Argentina's Merval Index isn't making anybody cry about its performance.

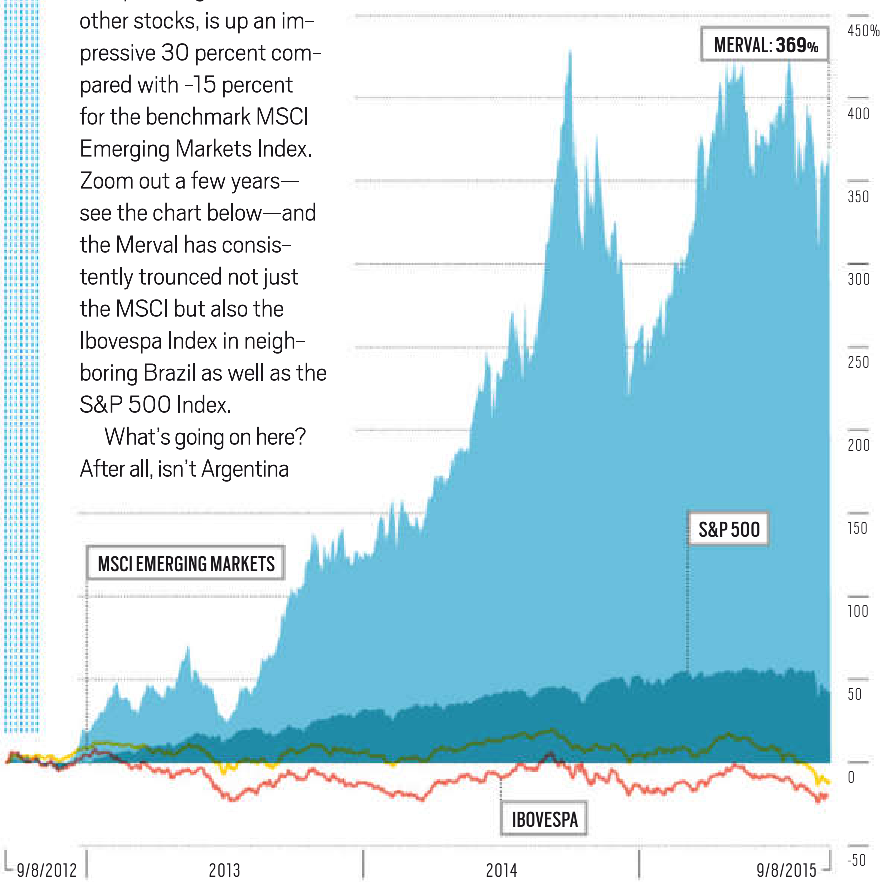
Through Sept. 8, the Merval, which comprises energy players YPF and Pampa Energía and nine other stocks, is up an impressive 30 percent compared with -15 percent for the benchmark MSCI Emerging Markets Index. Zoom out a few years—see the chart below—and the Merval has consistently trounced not just the MSCI but also the Ibovespa Index in neighboring Brazil as well as the S&P 500 Index.

What's going on here? After all, isn't Argentina better known for baroque political scandals, nationalizing foreign enterprises, and failing to honor its debts?

Yes, but as risky as it may seem, wealthy Argentines prefer to park their capital in stocks rather than hard assets such as real estate, according to Claus Born, a money manager at Franklin Templeton Investments who specializes in emerging markets. Foreign investors have been bullish on Argentine equities ever since it became clear in 2013 that President Cristina Fernández de Kirchner couldn't run for a third term in the general election on Oct. 25.

"Everything that can go wrong in a country has gone wrong," Born says. "But the stock market has taken off."

EDWARD ROBINSON

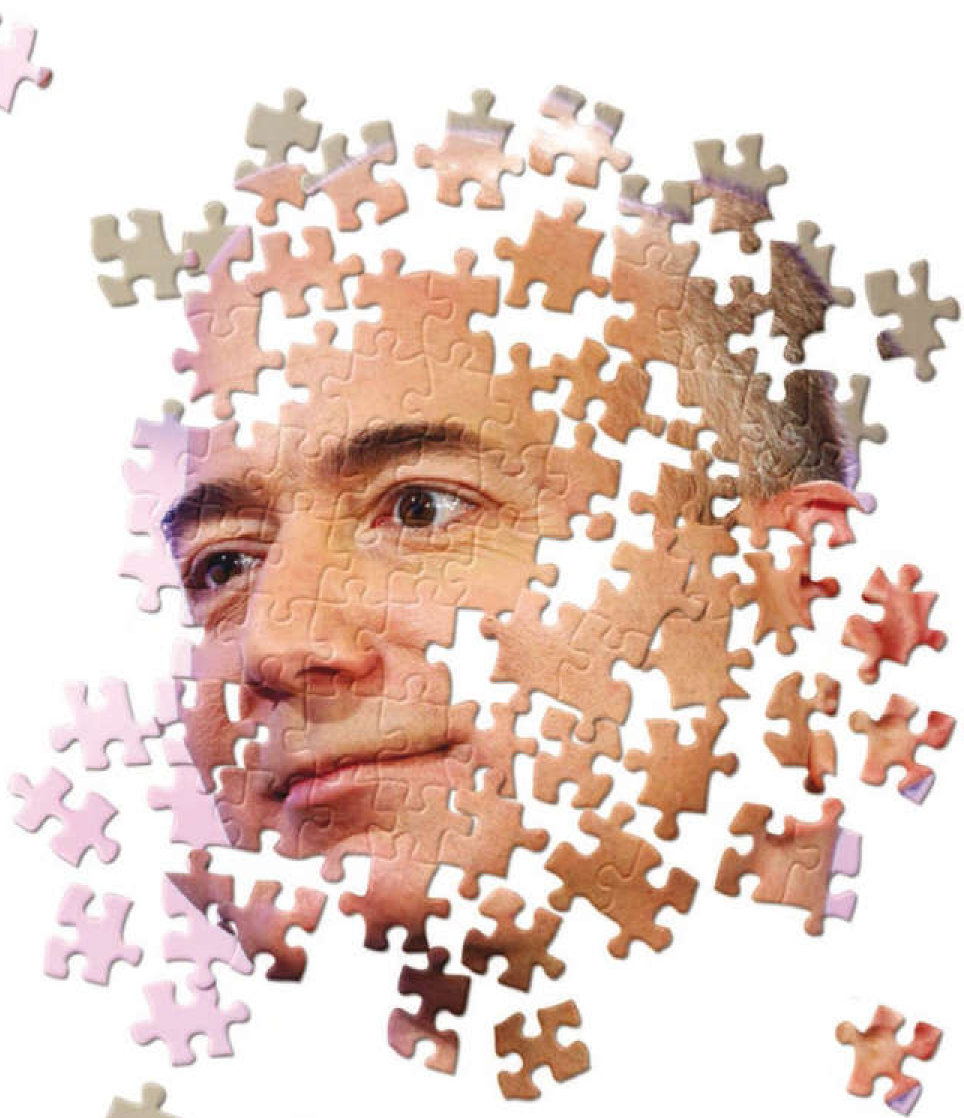


GOOGLE VS. AMAZON	YEAR-TO-DATE RETURN	FIVE-YEAR RETURN	ASSET TURNOVER (2014)	GROSS MARGIN (2014)	REVENUE GROWTH (2014)
GOOGLE	21.3%	173.4%	0.55	61.1%	18.9%
AMAZON	66.8%	272%	1.88	29.5%	19.5%

Through Sept. 8. Source: Bloomberg

The Amazon Puzzle

In a battle of tech titans, some investors may have reason to prefer Bezos over Brin and Page.



WHICH COMPANY IS a better investment, Google or Amazon.com? Conventional wisdom suggests Google, which turns huge profits, enjoys better gross margins, and has a far lower price-to-earnings ratio. Yet Amazon's stock has returned 51 percent in the past year, compared with 7 percent for Google.

That's a phenomenon Steve Hanke, an economics professor at Johns Hopkins University, and Ryan Guttridge, a fellow there, have named the "Amazon puzzle," and one they say they've figured out. The key is hidden in asset turns, or how effective companies are at getting revenue out of their investments. Asset turnover is defined as sales divided by total assets; the higher the number, the better. "Google is just abysmal, and Amazon is really good," says Guttridge, who once worked for legendary stock picker Bill Miller at Legg Mason in Baltimore.

How abysmal? Try 0.54 in 2013, 0.55 in 2014, and 0.53 so far this year, versus 2.05, 1.88, and 2.12 for Amazon, according to data compiled by Bloomberg.

Guttridge and Hanke credit Amazon's cash flow–focused CEO, Jeff Bezos. Bezos has a salary of just $81,840 a year, though he gets a further $1.6 million to cover his personal security. Beyond that, he receives nothing atop the return on the 18 percent of Amazon that he owns. It's the same stock shareholders own. He makes money only if the stock goes up and must keep shareholders happy or be held accountable. Larry Page and Sergey Brin of Google, while they earn only $1 a year in salary, control classes of stock outside investors can't touch.

'WITH AMAZON, YOU HAVE A CLEAR LINE BETWEEN ASSET TURNS AND CASH FLOW.'

That puts Google's lucrative search and YouTube services further out of reach of the little guy. And that's why Guttridge is betting on Bezos. "You buy equities because you expect to benefit from the free cash flow of the business," he says. "With Amazon, you have a clear line between asset turns and cash flow."

ANTHONY EFFINGER

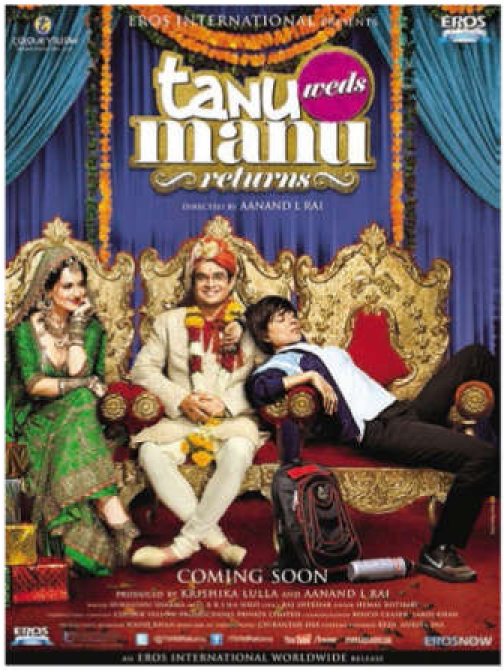
PETER KRAMER/NBC/NBC NEWSWIRE/GETTY IMAGES

PHOTO ILLUSTRATION BY **JASON LEE**

'In India, what are the three big things?
Cricket, religion—and movies.'
Eros Executive Chairman Kishore Lulla
Source: Bloomberg

The Netflix of India

Eros International, the Bollywood hit factory, is earning rave reviews for its streaming strategy.



ErosNow owns the digital rights to more than 3,000 movies, the biggest library in India.

EROS INTERNATIONAL is looking a lot like a surprise Bollywood hit for investors, including BlackRock and Temasek Holdings, Singapore's sovereign wealth fund.

Shares of Eros, an Indian film company that listed on the New York Stock Exchange in 2013, soared 100 percent from May 12 to Sept. 8 on optimism about the company's Internet streaming service, ErosNow. (Think of the service as the Netflix of India, backed by the largest producer and distributer of Bollywood films.) Launched in 2012, ErosNow had 26.5 million registered users as of July—39 percent higher than the previous quarter. Netflix isn't even slated to enter India until next year.

Users pay nothing for advertising-supported content on ErosNow; if they don't want ads, they can pay per film or subscribe to the monthly service for as little as 50 rupees (80 cents) a month. Those economics appeal to India's burgeoning middle class, a demographic that will number 200 million by 2020, according to Ernst & Young, and one that's increasingly consuming content on mobile devices.

Analysts expect Eros to leverage its Mumbai-based studio to fend off Netflix. The studio churns out about 70 films each year and is planning to ramp that up to more than 100 in the next three to five years. ErosNow began exclusively streaming the recent box office hit (and Eros film) *Tanu Weds Manu Returns* in July, just eight weeks after its release in cinemas, where it had grossed more than $40 million worldwide as of mid-August.

"Eros dominates Bollywood, and Indians want Bollywood, not Hollywood," says Tim Nollen, a media analyst at Macquarie Capital in New York. "Netflix may have success with Hollywood content, but their path to success in India is not nearly as clear as in other countries."

STEPHANIE BAKER

DRINKING WELL AT 36,000 FEET

Airlines are upgrading their wine cellars to woo passengers to first and business classes.

THIS PAST SPRING, Joost Heymeijer arrived in Bordeaux with the Emirates airline wine team for a four-day marathon of tasting barrel samples. They ended up purchasing almost 1 million bottles as futures, zeroing in on 60 famed *crus classés*.

When the wines are ready to drink, they'll be poured gratis in Emirates' first and business classes. "A long journey looks a lot better with a glass of fine Bordeaux or champagne," says Heymeijer, who's in charge of the airline's in-flight catering. "That's why we've spent half a billion dollars on the wine program over the past decade."

Emirates is one of many airlines adding elite wines to the list of luxury perks like massage beds and Michelin-starred cuisine as a long-term strategy to win wealthy travelers' loyalty.

Carriers choose most wines from blind tastings using experts such as James Cluer, who initiated Qatar Airways' program a decade ago. Selections vary widely by airline and flight, but top champagnes are a constant. Lists favor rich and fruity wines over delicate, complex ones because cabin pressure and low humidity diminish your senses of smell and taste.

Airlines are also investing heavily in service. Etihad Airways uses crystal glassware created especially for the airline, and Qatar has provided professional wine-training courses for all of its 9,000 flight attendants.

What's next? I predict onboard sommeliers conducting private wine tastings in the sky.

ELIN McCOY

POSTER: COURTESY OF EROS INTERNATIONAL; 5W731

Cuba for Realists

There's optimism on the island, and international investors are twitchy with anticipation. That doesn't mean Cuba isn't still a deeply repressive state.

THIS HAS BEEN A YEAR OF new possibilities for Cuba. Even with the U.S. embargo still in place, the restoration of diplomatic ties has injected the socialist redoubt of Fidel and Raúl Castro with energy and hope—not to mention tourists bearing dollars and euros. As things stand, though, hopes for a Cuban economic miracle are likely to remain just that.

True, the economy is expected to grow by almost 5 percent this year, a big improvement over last year's 1.3 percent. Meanwhile, U.S. companies are prospecting, as are investors from Asia, Latin America, and Europe.

Trouble is, here's what they find: a state that ringfences the choicest investment opportunities; frowns on majority ownership; is slow to approve new ventures; controls the hiring, firing, and payment of workers and the distribution of agricultural and other goods; and expropriates businesses as it sees fit. Recent reforms have allowed some Cubans to start some kinds of small businesses—a dramatic change by the island's impressive standards of economic repression. But the Cuban state has hardly gone pro-enterprise. Or pro-freedom.

Could there be such a thing as "capitalism with Cuban characteristics"? That might be the hope of Luis Alberto Rodriguez, the Cuban general who runs GAESA, the state-owned conglomerate controlling more than half of Cuba's economy. If you're hoping to do business in Cuba, he's likely to be your partner, as Michael Smith describes in "Doing Business With the General," on page 108.

Cubans can now own mobile phones. Internet access, however, remains tightly controlled.

STR/AFP/GETTY IMAGES

In the end, you can have capitalism or Cuban characteristics, but not both. No doubt, the lifting of the U.S. embargo would help to liberalize the economy. But real change depends on a sudden access of wisdom on the part of a vacillating and sclerotic one-party state facing a big leadership transition when 84-year-old Raúl Castro steps down in 2018.

Without radical reform, Cuba will struggle to avoid further stagnation. Cigars, beaches, and charming old Chevrolets won't suffice to lure $2.5 billion a year in foreign investment—Cuba's stated goal and a small fraction, by the way, of what it really needs.

The full reform agenda is daunting, but Cuba could do one smart thing quickly: abandon the dual-currency system, which cloaks the inefficiency of state enterprises and makes it harder for foreign investors to do business. The regime has repeatedly punted on unifying the peso. Will Castro fulfill a pledge to do so before next spring's party congress? If he does, a tentative Cuba Libre would be in order.

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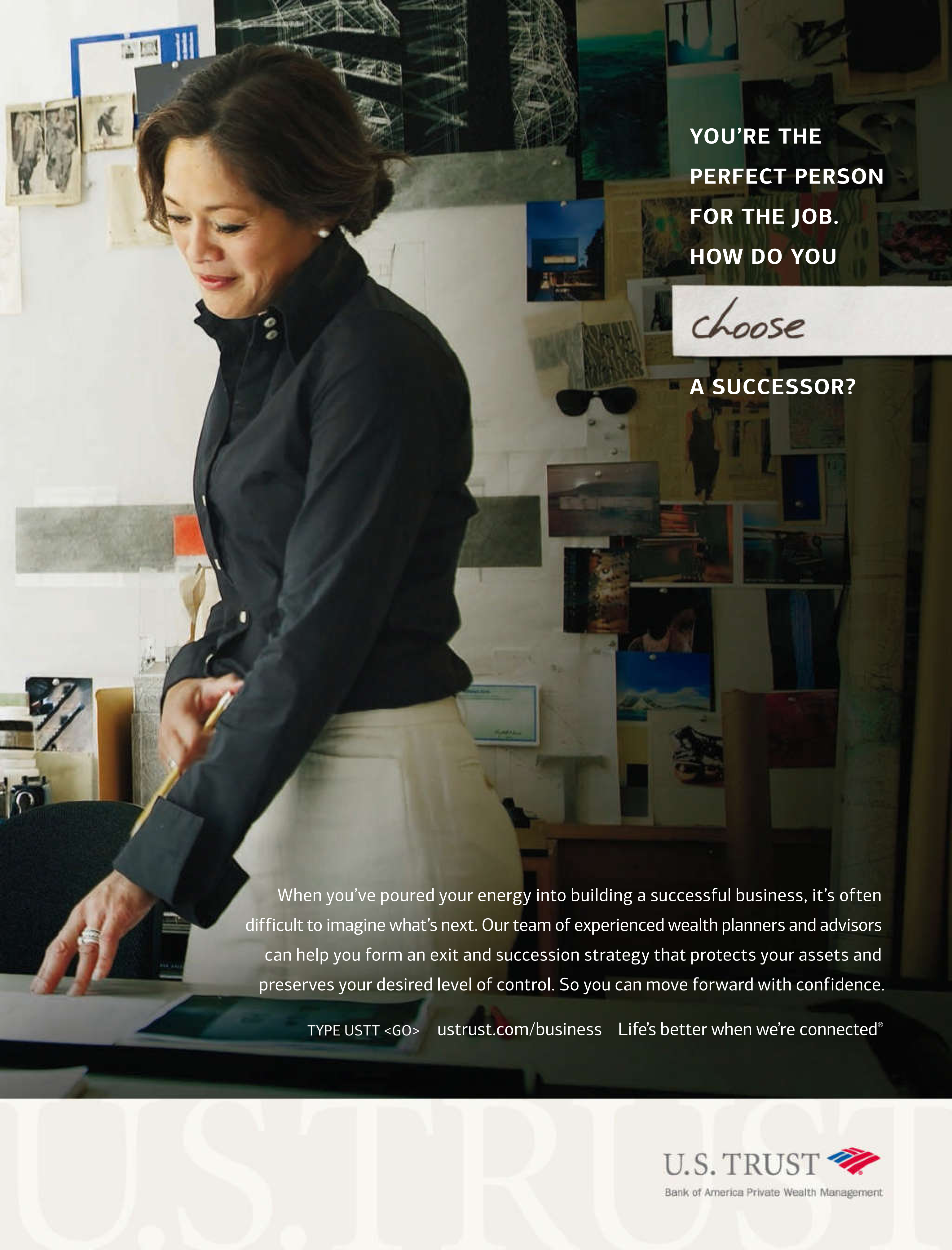
THE ART PEOPLE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50 Most Influential

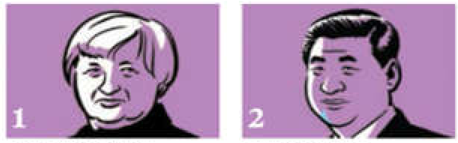
THE PEOPLE WITH MONEY, POWER, AND IDEAS

THEY BUILD COMPANIES and assemble fortunes. They run banks, or hope to disrupt them. They shape economies and spread ideas. They manage money and wield the clout that goes with the billions of dollars they invest. The 50 people in our fifth annual

For our take on the many paths to influence in the financial world—and the full list—open the gatefold.

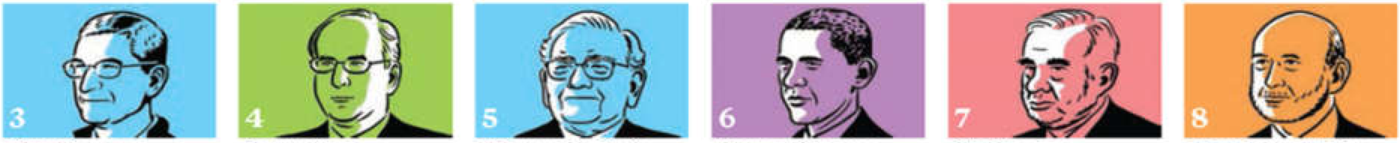
PHOTOGRAPH BY JOE PUGLIESE

50 MOST INFLUENTIAL



1 **Janet Yellen**
Chair, U.S. Federal Reserve

2 **Xi Jinping**
President of China



3 **Tim Cook**
CEO, Apple

4 **Larry Fink**
Co-founder, BlackRock

5 **Warren Buffett**
CEO, Berkshire Hathaway

6 **Barack Obama**
President of the United States

7 **Carl Icahn**
Chairman, Icahn Enterprises

8 **Lloyd Blankfein**
CEO, Goldman Sachs

9 **Angela Merkel**
German Chancellor

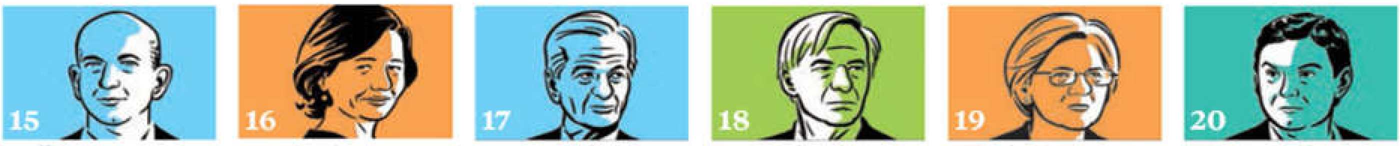
10 **Reid Hoffman**
Co-founder, LinkedIn

11 **Jamie Dimon**
CEO, JPMorgan Chase

12 **Abigail Johnson**
CEO, Fidelity Investments

13 **Narendra Modi**
Prime Minister of India

14 **Mario Draghi**
President, European Central Bank



15 **Jeff Bezos**
Founder, Amazon.com

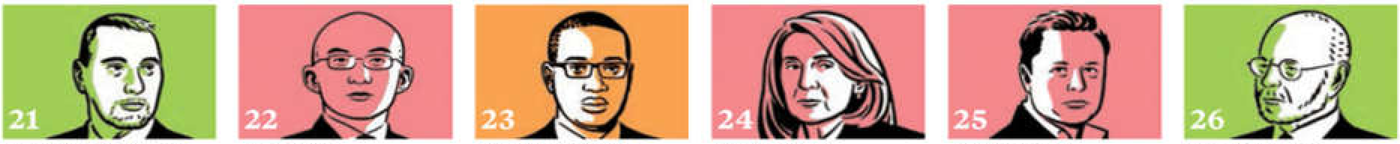
16 **Ana Botín**
Chairman, Banco Santander

17 **Jorge Paulo Lemann**
Co-founder, 3G Capital

18 **Ray Dalio**
Founder, Bridgewater Associates

19 **Elizabeth Warren**
U.S. Senator

20 **Thomas Piketty**
Professor, Paris School of Economics



21 **Jeffrey Gundlach**
Founder, DoubleLine Capital

22 **Fan Bao**
Founder, China Renaissance

23 **Tidjane Thiam**
CEO, Credit Suisse Group

24 **Ruth Porat**
CFO, Google

25 **Elon Musk**
Founder, Tesla Motors

26 **Paul Singer**
Founder, Elliott Management

27 **Marc Andreessen**
Co-founder, Andreessen Horowitz

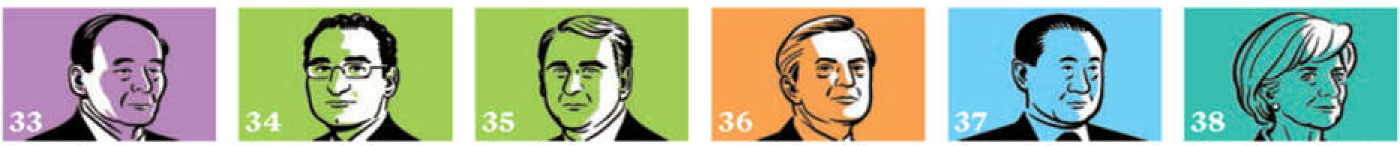
28 **Renaud Laplanche**
Founder, LendingClub

29 **Akio Toyoda**
President, Toyota Motor

30 **Paul Krugman**
Professor, City University of New York Graduate Center

31 **Pope Francis**
Roman Catholic Church

32 **Ellen Kullman**
CEO, DuPont



33 **Wang Qishan**
Secretary, Central Commission for Discipline Inspection

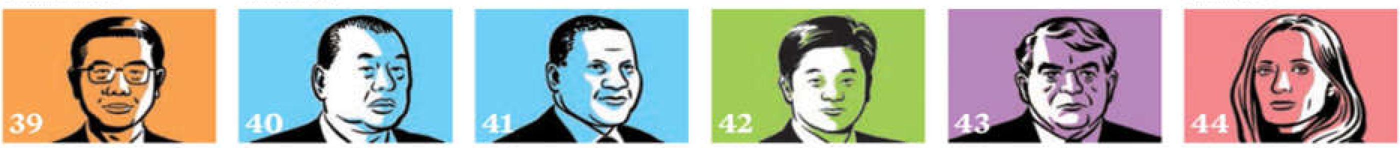
34 **Jonathan Gray**
Global Head of Real Estate, Blackstone Group

35 **Ken Griffin**
Founder, Citadel

36 **John Stumpf**
CEO, Wells Fargo

37 **Wang Jianlin**
Founder, Dalian Wanda Group

38 **Christine Lagarde**
Managing Director, International Monetary Fund



39 **Jiang Jianqing**
Chairman, Industrial & Commercial Bank of China

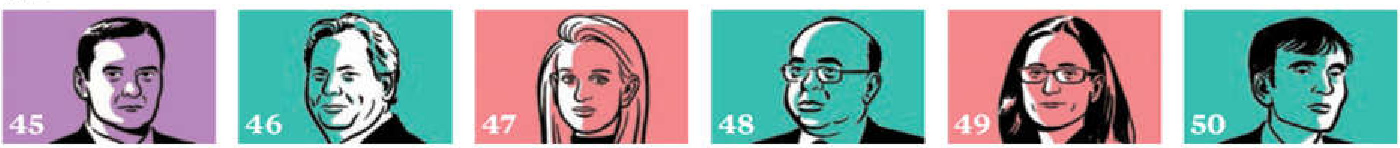
40 **Jimmy Lai**
Founder, Next Media

41 **Aliko Dangote**
Founder, Dangote Group

42 **Michael Kim**
Founder, MBK Partners

43 **John Taylor**
Professor, Stanford University

44 **Blythe Masters**
CEO, Digital Asset Holdings



45 **George Osborne**
U.K. Chancellor of the Exchequer

46 **Richard Thaler**
Professor, University of Chicago Booth School of Business

47 **Elizabeth Holmes**
Founder, Theranos

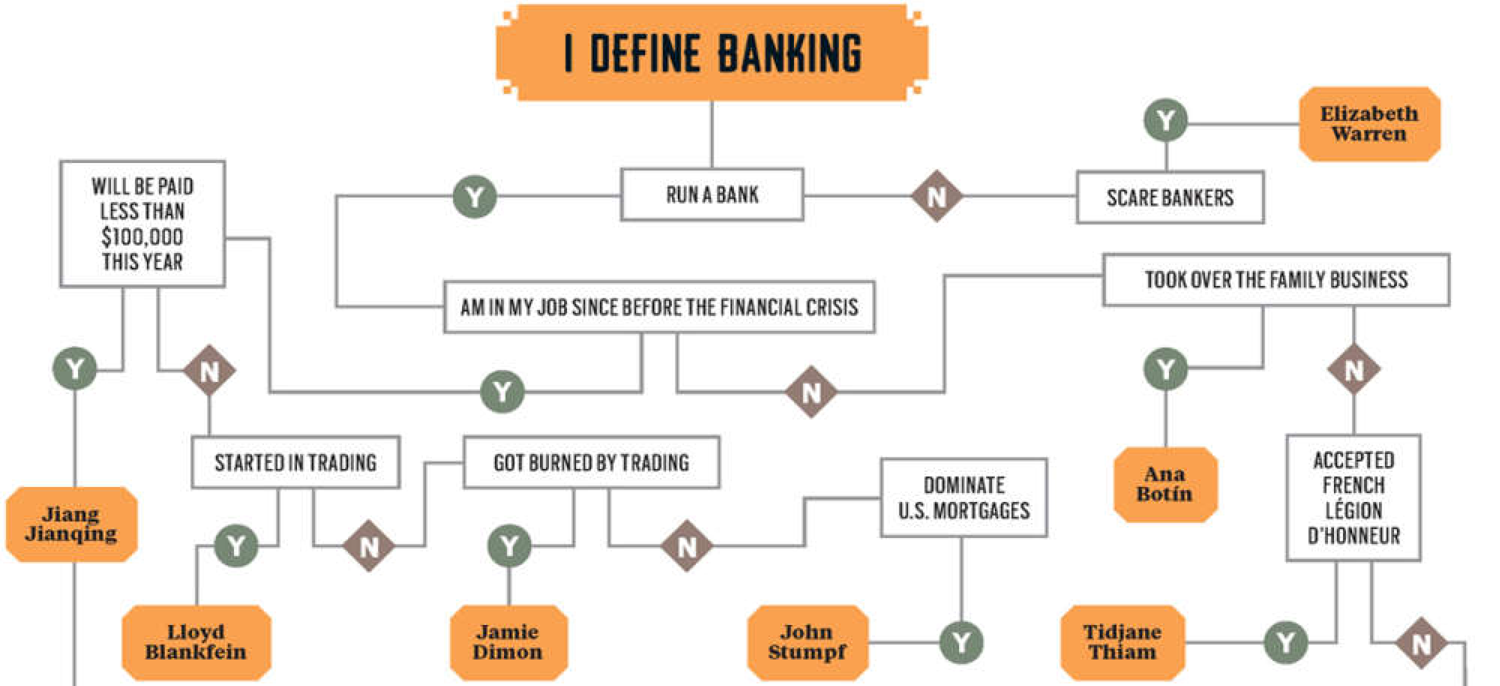
48 **Mo Ibrahim**
Chairman, Mo Ibrahim Foundation

49 **Jane Gladstone**
Senior Managing Director, Evercore Partners

50 **Ruchir Sharma**
Head of Emerging Markets and Global Macro, Morgan Stanley Investment Management

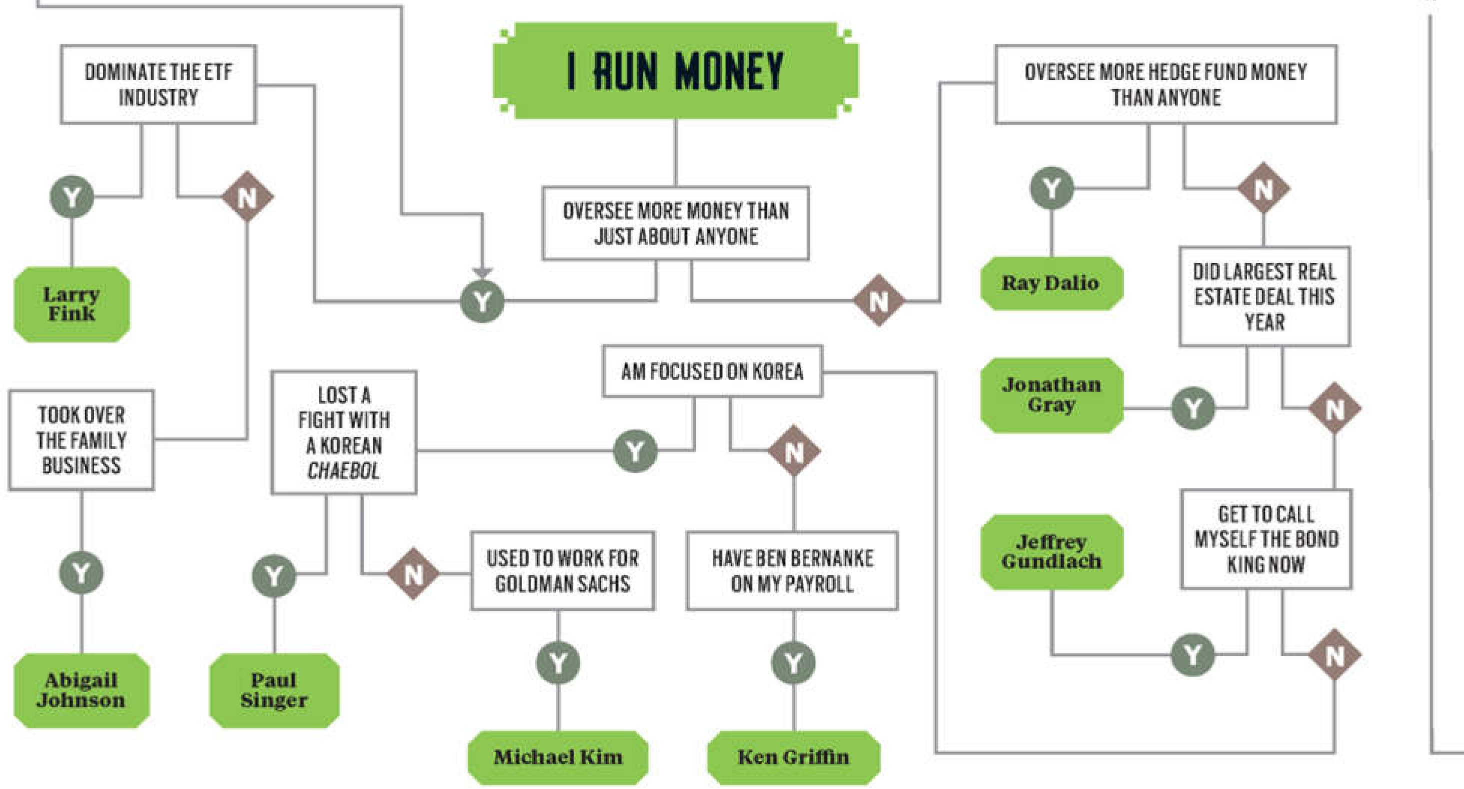
ILLUSTRATIONS BY **R KIKUO JOHNSON**

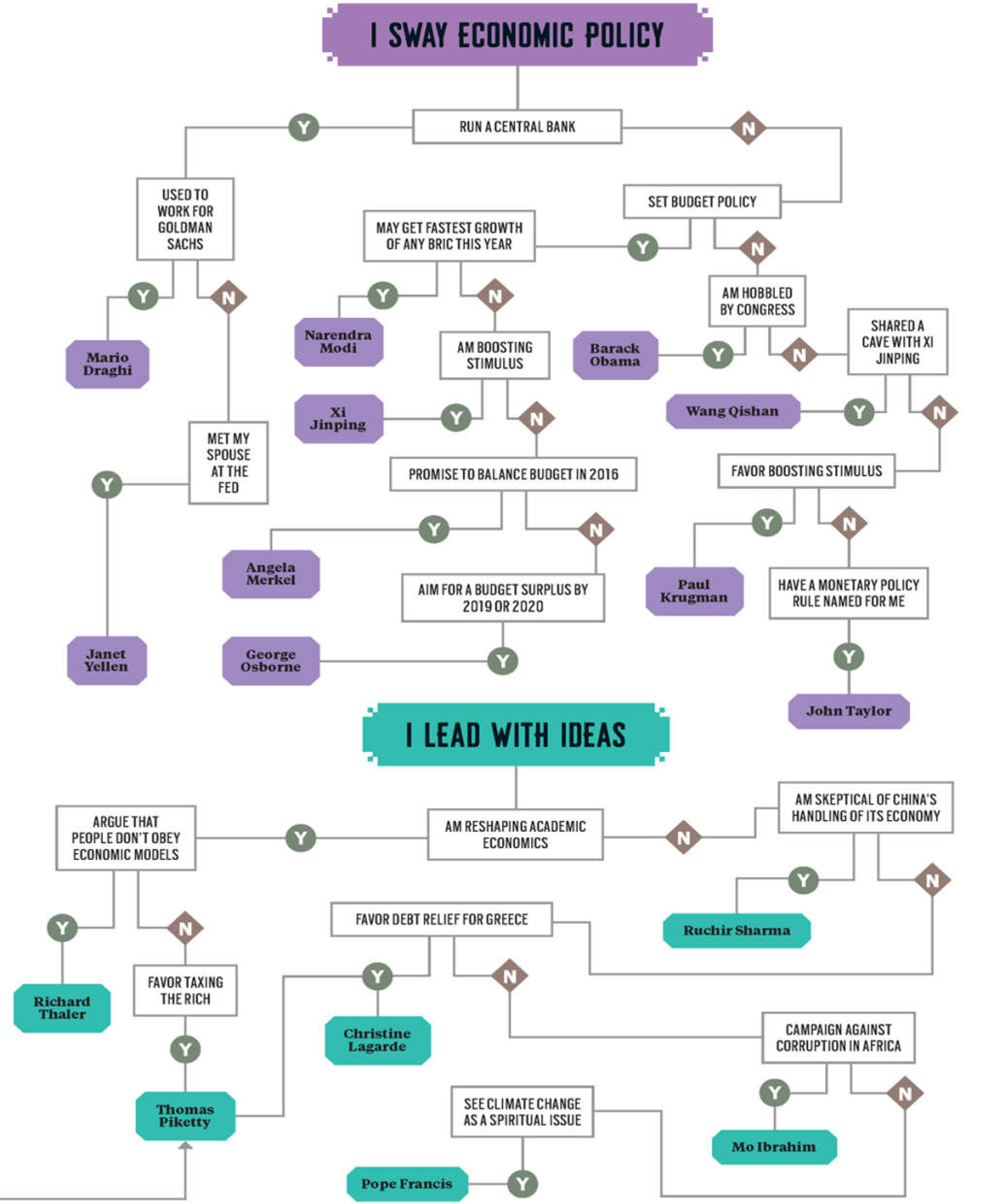

I BUILD COMPANIES
FAVOR OLD-LINE INDUSTRIES
AM THE RICHEST MAN IN AFRICA
Aliko Dangote
INVEST IN PICKLES, KETCHUP, AND CHEESE
INVEST IN BEER
Jorge Paulo Lemann
AM PAID LESS THAN $1 MILLION
Warren Buffett
TOOK OVER THE FAMILY BUSINESS
Akio Toyoda
FOUNDED MY OWN COMPANY
OWN AN INFLUENTIAL NEWSPAPER
SUPPORT PRO-DEMOCRACY PROTESTERS
Jimmy Lai
MY COMPANY PASSED WAL-MART IN MARKET CAP
Jeff Bezos
AM THE RICHEST MAN IN CHINA
Wang Jianlin
FACE ACTIVIST INVESTORS WHO OWN SHARES
HAVE FACED A PROXY FIGHT WITH ACTIVISTS
Ellen Kullman
HAVE DOUBLED PROFITS SINCE TAKING THE TOP JOB
Tim Cook
I SHAPE TECH
PROVIDE VENTURE CAPITAL
FUNDED LYFT
AM MENTIONED AS POSSIBLE TREASURY SECRETARY
I ONCE WAS
Carl Icahn
EXPECT SILICON VALLEY TO UPEND WALL STREET
Marc Andreessen
FUNDED EATWITH
Reid Hoffman
AND ME TOO
Blythe Masters
USED TO WORK FOR JAMIE DIMON
HAVE LARRY SUMMERS ON MY BOARD
Renaud Laplanche
AM PART OF THE PAYPAL MAFIA
Elon Musk
LEFT WALL STREET FOR TECH JOB
Ruth Porat
LEFT STANFORD FOR CURRENT JOB
Elizabeth Holmes
RUN A FINTECH COMPANY
AM A TOP FINTECH INVESTMENT BANKER
Jane Gladstone
AM A TOP TECHNOLOGY BANKER IN CHINA
Fan Bao



WHY I'M INFLUENTIAL

THE PATHWAYS OF POWER AND PERSUASION THAT CONNECT THE FINANCIAL WORLD




I SWAY ECONOMIC POLICY
RUN A CENTRAL BANK
Y
N
USED TO WORK FOR GOLDMAN SACHS
Y
N
Mario Draghi
MET MY SPOUSE AT THE FED
Y
Janet Yellen
SET BUDGET POLICY
Y
N
MAY GET FASTEST GROWTH OF ANY BRIC THIS YEAR
Y
N
Narendra Modi
AM BOOSTING STIMULUS
Y
N
Xi Jinping
PROMISE TO BALANCE BUDGET IN 2016
Y
N
Angela Merkel
AIM FOR A BUDGET SURPLUS BY 2019 OR 2020
Y
George Osborne
AM HOBBLED BY CONGRESS
Y
N
Barack Obama
SHARED A CAVE WITH XI JINPING
Y
N
Wang Qishan
FAVOR BOOSTING STIMULUS
Y
N
Paul Krugman
HAVE A MONETARY POLICY RULE NAMED FOR ME
Y
John Taylor
I LEAD WITH IDEAS
AM RESHAPING ACADEMIC ECONOMICS
Y
N
ARGUE THAT PEOPLE DON'T OBEY ECONOMIC MODELS
Y
N
Richard Thaler
FAVOR TAXING THE RICH
Y
Thomas Piketty
AM SKEPTICAL OF CHINA'S HANDLING OF ITS ECONOMY
Y
N
Ruchir Sharma
FAVOR DEBT RELIEF FOR GREECE
Y
N
Christine Lagarde
CAMPAIGN AGAINST CORRUPTION IN AFRICA
Y
N
Mo Ibrahim
SEE CLIMATE CHANGE AS A SPIRITUAL ISSUE
Y
Pope Francis

A dynamic **ETF** structure

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Apple Inc	12.80
Microsoft Corp	7.28
Amazon.com Inc	4.79
Google Inc	4.37
Facebook Inc	4.14
Google Inc	3.86
Gilead Sciences Inc	3.30
Cisco Systems Inc	2.73
Intel Corp	2.60
Comcast Corp	2.46

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Most Influential ranking are a varied group but have in common extraordinary success in their chosen fields.

In selecting our influential elite, we favor recent accomplishments over lifetime achievements. Half the people here have never appeared on our list before. Tech executives and entrepreneurs and the venture capitalists who fund them are ascendant of late, and the list reflects that. China, for better or worse, is vital to global markets, and we have a bigger Asia cohort than ever.

To build our list each year, we start with a much larger universe of candidates, compiled with the help of Bloomberg News reporters and editors around the world. We also rely on the rankings, profiles, and cover stories we publish throughout the year in *Bloomberg Markets*. Then the magazine's editors winnow it down, making the hard calls about who's in and who's out.

This year, for the first time, we enlisted the help of nine industry experts, who convened as the advisory board for our companion conference, the *Bloomberg Markets* Most Influential Summit (to be held in three locations—Hong Kong, London, and New York—on Oct. 6). The panel consists of Cliff Asness, co-founder, AQR Capital Management; Brad Burnham, managing partner, Union Square Ventures; Marty Chavez, chief information officer, Goldman Sachs; Roger Ferguson, CEO, TIAA-CREF; Sonia Gardner, president, Avenue Capital Group; Alexandra Lebenthal, CEO, Lebenthal Holdings; Jeffrey Smith, CEO, Starboard Value; Paul Taubman, founding partner, PJT Partners; and Jeffrey Ubben, founder, ValueAct Capital Management.

Influence plays out in many ways. Our list this year includes the CEO who beat back an activist investor's power grab, the African billionaire using his fortune to fight corruption, the economist who thinks economic models often don't match reality, the money manager who has been publishing market analysis since he was 18, and the chairman of the world's largest bank by assets—who will be paid less than $100,000 this year.

ROBERT S. DIETERICH

1 JANET YELLEN

The Fed chair holds in her hands the power to start a whole new era in monetary policy.

BY RICH MILLER AND CHRISTOPHER CONDON

PHOTOGRAPH BY JOE PUGLIESE

ON THE BOOKSHELF behind the sofa in Janet Yellen's spacious office at 20th Street and Constitution Avenue in Washington sits a framed photograph her staff gave her when she was changing jobs five years ago. In it, she's posed next to a poster she kept on her wall when she was president of the Federal Reserve Bank of San Francisco. It's *that* poster, the now ubiquitous World War II slogan in plain type under a small British crown.

"Keep Calm and Carry On"—of course that's Yellen's motto. What's more befitting a Fed chair who has yet to flinch in the face of withering criticism from right and left and especially from Congress, who is almost never off message, and who deftly manages an at times deeply divided policy-making committee?

Calmly carry on is what Yellen did on Sept. 17. Faced with a cacophony of advice from every corner and conflicting signals from a sturdy U.S. recovery and a faltering global economy, Yellen sifted the data, weighed the risks, and decided to put off the Fed's first rate increase in nine years. But not for long. The rate-setting Federal Open Market Committee is still on course to lift rates from near zero later this year, she said at a press conference after the decision was announced.

"We have been receiving advice from a large number of economists and interested groups," she said with an amused grin. "But look, at the end of the day, it's the committee's job to come together to analyze the data that we have on the economy," she said, "and arrive at a committee judgment about the appropriate path of policy. And that's what we did today."

Yellen, 69, has spent her first year and a half atop the Fed positioning the central bank for liftoff—that first move up in rates that will bring Fed policy one step closer to normalcy after a period of extraordinary support for a weak economy in the U.S. and worldwide. She wound up the Fed's bond-buying program a year ago and, save for one verbal misstep in her first press conference, deftly laid the groundwork for a shift to a tighter monetary stance. She has made subtle, carefully calibrated changes along the way in how she describes the central bank's intentions.

Yellen's colleagues seemed to be lining up behind a September rate hike—until the market swoon in late August, triggered by the rout in China's stock market, the sudden devaluation of the yuan, and the growing concern that the Chinese government might be bungling its management of the economy. Yellen's reaction? Let's take a deep breath and some time to figure out what message the markets are sending about the global economy. But let's not be scared into abandoning the plan for a rate hike this year.

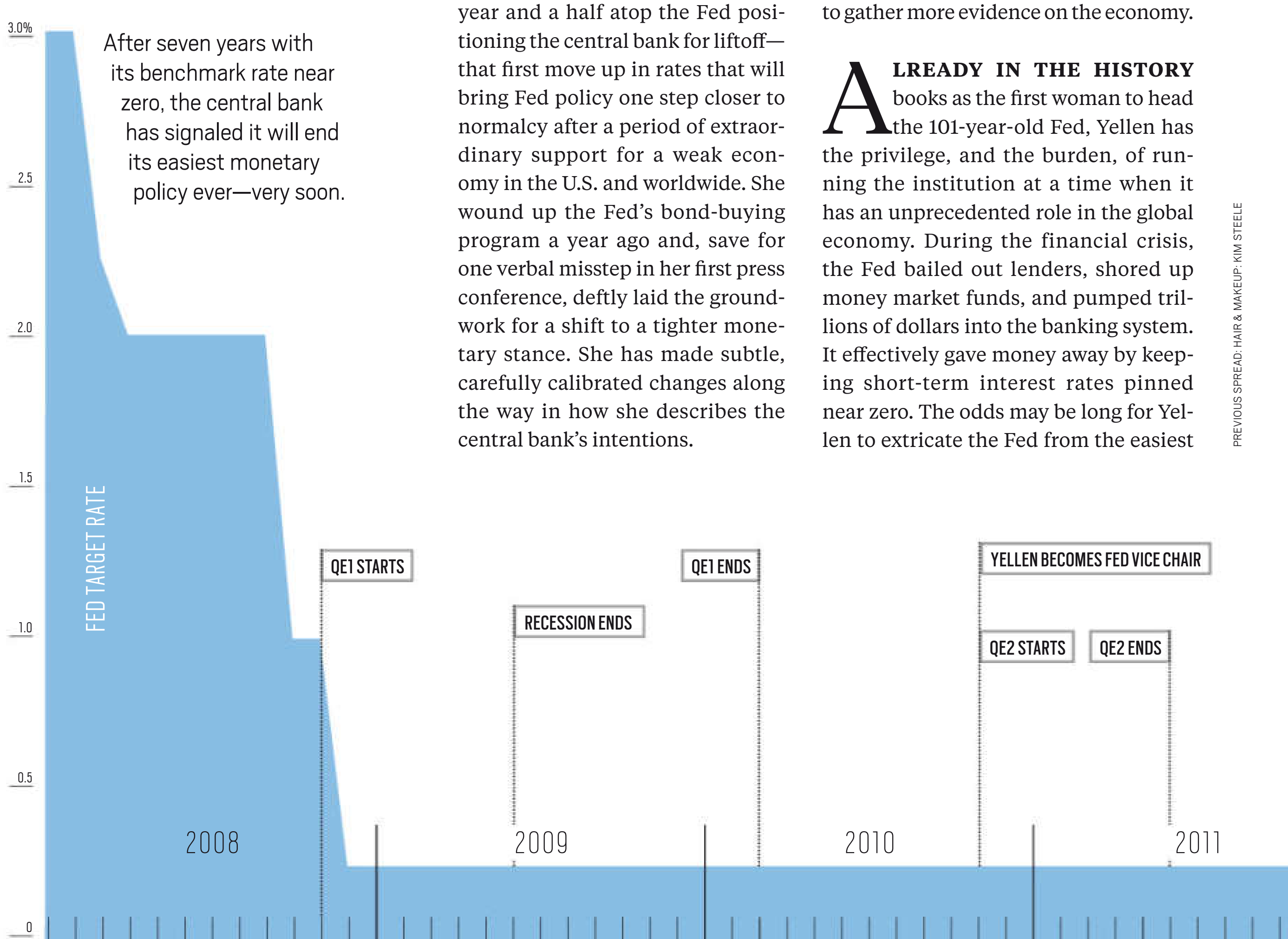
"The Fed should not be responding to the ups and downs of the markets," she said at the post-meeting presser. "But when there are significant financial developments, it's incumbent on us to ask ourselves what is causing them." So liftoff will wait a little longer. The Fed has meetings in October and December, and a hike is on the agenda for one of them.

"Discretion is the better part of valor," says Ethan Harris, co-head of economic research at Bank of America. Not raising rates in September was a "tactical delay" to gather more evidence on the economy.

ALREADY IN THE HISTORY books as the first woman to head the 101-year-old Fed, Yellen has the privilege, and the burden, of running the institution at a time when it has an unprecedented role in the global economy. During the financial crisis, the Fed bailed out lenders, shored up money market funds, and pumped trillions of dollars into the banking system. It effectively gave money away by keeping short-term interest rates pinned near zero. The odds may be long for Yellen to extricate the Fed from the easiest

PREVIOUS SPREAD: HAIR & MAKEUP: KIM STEELE

EXTRAORDINARY TIMES AT THE FED



Yellen was an adviser to President **Bill Clinton** in the 1990s, when **Robert Rubin**, center, was at the Treasury.

STEPHEN JAFFE/AFP/GETTY IMAGES

monetary policy it's ever run without something going awry—stocks plunging, inflation getting out of control, deflation setting in, or another recession striking before many Americans feel the effects of the last one have been overcome.

"There is no conceivable scenario in which it is going to be easy," Alan Greenspan, Fed chairman from 1987 to 2006, said at a panel discussion in Washington on May 19.

The critics of Fed policy range from economist Paul Krugman and hedge fund manager Ray Dalio, who believe the central bank shouldn't be raising rates at all, to people such as John Taylor of Stanford University, who says the rate hikes should have started about a year ago. "It's overdue," says Taylor, who would probably be a candidate for Yellen's job should a Republican win the White House in 2016. (See box on page 44.)

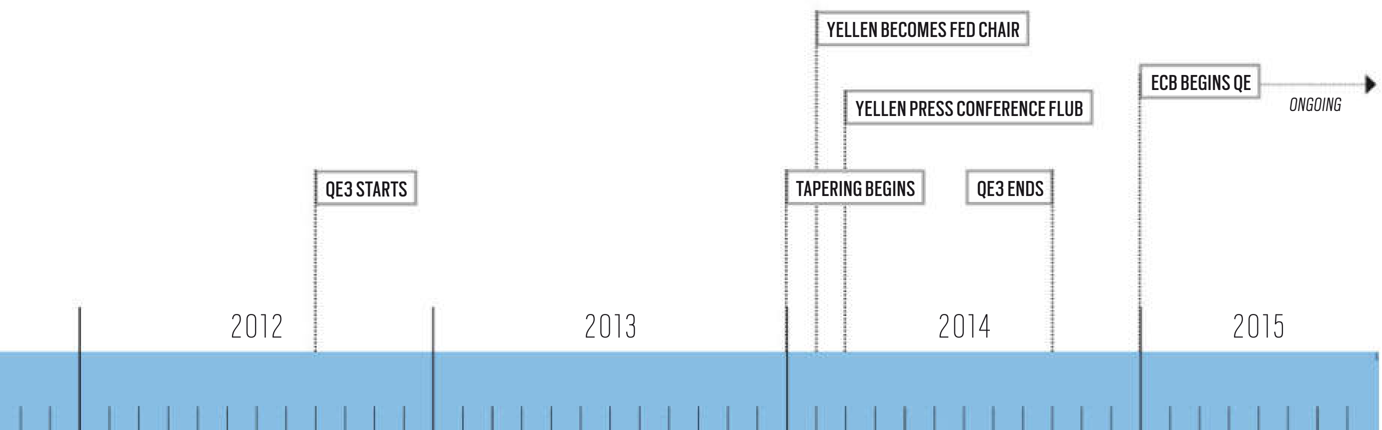
Sniping from her fellow economists doesn't particularly faze Yellen. She's used to such vigorous debate, both inside the Fed and from her time as a professor.

What worries her more are attempts by lawmakers to impose new curbs on the Fed, arguing it overstepped the bounds during the financial crisis and is being reckless with its easy money now. Lawmakers, most notably Republican Senator Rand Paul, who is running for president, propose congressional audits of Fed monetary policy. And an odd-couple alliance of liberal Massachusetts Democrat Elizabeth Warren and Tea Party Republican David Vitter of Louisiana champions a Senate bill further restricting the central bank's power to lend money during financial emergencies—an ability that some Fed officials fear was already curbed too much by the Dodd-Frank law in 2010.

Yellen is vehement that central banks make the best monetary policy decisions when they have independence. "I feel very strongly about that," she told reporters in March.

If all the external pressure isn't enough, the economy itself is a puzzle, raising questions about the Fed's ability to restore American prosperity on its own with little help from the lawmakers who control fiscal matters. The U.S. has grown just 2.2 percent per year since the end of the Great Recession in June 2009, well below the 3 percent pace of the decade prior to the financial crisis. Inflation has remained stubbornly below the Fed's 2 percent goal. The Fed's lax stance has proved to be a powerful tonic for financial markets, fanning fears that, to borrow a Greenspan phrase, irrational exuberance is boosting asset values.

SO THE DIMINUTIVE, WHITE-haired Yellen, who looks a bit like a kindly grandmother (though she doesn't actually have grandkids), has to be the tough guy who will soon start raising rates, even as risks to the economy persist. At first blush, it seems paradoxical that Yellen has been cast in this role. She's known as a dove who favors easy money to boost employment, putting her at the opposite end of the spectrum from the hawks who keep a sharp eye on inflation and raise rates more quickly.



Yellen and husband **George Akerlof** taught at UC Berkeley, where an old photo of her is on an office wall. In 2001, they celebrated his Nobel prize.

FROM LEFT: JIM WILSON/THE NEW YORK TIMES/REDUX; MONICA M. DAVEY/AFP/GETTY IMAGES

Much of Yellen's academic research focused on the labor market, and she traces her devotion to this topic in part to hearing members of an older generation tell of their struggles during the Great Depression. "I didn't live through it, but my parents grew up during it," she said in a 2011 interview with Bloomberg.

Still, colleagues say she recognizes there is just so much the Fed can do to help the less well off. She's shown a willingness during her time at the Fed to tighten credit when she thought it was needed to keep inflation in check or, in monetary jargon, foster price stability.

"Every central banker I know treats price stability as a very central responsibility," says Ben Bernanke, her predecessor as Fed chairman. "She's no different in that respect."

IT WAS UNDER BERNANKE, IN charge from 2006 to 2014, that the current era of central banker preeminence began. As financial markets froze and the global economy teetered on the brink of collapse, the Fed stretched the limits of the law to keep credit flowing. With President Barack Obama and the Republican-led Congress at loggerheads, the Fed found itself to be the only game in town in nurturing a hesitant recovery. It bought trillions of dollars of bonds, the strategy dubbed quantitative easing.

Conservatives condemned QE as back-door financing of Obama's budget deficits. Liberals, while lauding the effort to foster growth and jobs, complained that the rich were getting richer as cheap Fed money inflated financial markets.

In fact, the bond buying has had far less economic impact than its supporters—or critics—expected. The current economic recovery has been the slowest since World War II, with growth consistently falling short of the Fed's own projections. The almost complete lack of inflation, meanwhile, runs counter to some dire warnings. In 2010, two dozen prominent economists and money managers wrote in an open letter to Bernanke that QE must be abandoned to keep prices from getting out of control and avoid debasing the currency. In fact, inflation has been below the Fed's target of 2 percent for 39 straight months.

'We have been receiving advice from a large number of economists and interested groups,' Yellen said with a grin.

What's rising are deflation fears. Dalio, the founder of Bridgewater Associates, the world's largest hedge fund firm, sees a threat of "deflationary contractions" worldwide. He predicts the Fed will have to flood the economy with more cash next year to protect the U.S. The dollar, defying the doomsayers of 2010, has soared.

One bright spot: the labor market. The U.S. jobless rate has fallen faster than Fed officials expected and, at 5.1 percent as of August, is roughly what many of them consider to be full employment. That's a big reason some are itching to increase rates. But there's an anomaly here, too. The improvement in the job market—unemployment cut almost in half in six years—hasn't done anything for most workers' wages.

In sum, nobody has ever faced a situation like this before. "There are a lot of uncertainties out there," says Donald Kohn, who served as vice chairman of

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Yellen was a Fed governor under **Alan Greenspan**. In 2010, **Ben Bernanke** swore her in as his vice chair, right.

FROM LEFT: PABLO MARTINEZ MONSIVAIS; HO/REUTERS/CORBIS

the Fed from 2006 to 2010. "We're in uncharted waters as far as policy and the economy are concerned."

YELLEN'S LONG PATH TO THE top of the Fed began in Bay Ridge, Brooklyn, a working-class neighborhood where her father hung out his shingle as a young doctor during the Great Depression. Her mother, who taught elementary school until her own children arrived, handled the family finances and followed the stock market—traits Yellen has said probably spurred her interest in economics.

Yellen was a star student at Fort Hamilton High School, scooping up prizes in math, science, and English, and became class valedictorian. After graduating from Pembroke, Brown University's women's college, she earned a Ph.D. in economics at Yale University in 1971.

There, she studied under James Tobin, a towering figure in economics and strong advocate for government intervention in the economy. Tobin, who served as an adviser to President John F. Kennedy and was awarded the Nobel Prize in 1981, became Yellen's most significant mentor.

Yellen was so meticulous in taking notes during Tobin's macroeconomic class that they ended up as the unofficial textbook for future grad students. Such thoroughness is her hallmark to this day, so much so that one of her colleagues has gently ribbed her that she spends too much time preparing for public appearances. Her reply: That M.O. has served her well over the years, helping her keep calm and deal with the unexpected when it arrives.

In many ways, Yellen has been preparing to be Fed chair her entire career. Over a total of roughly 15 years starting in 1977, she held a variety of Fed posts: as an economist in Washington, as a governor, as president of the San Francisco Fed until 2010, and then as vice chair under Bernanke. She was chairman of President Bill Clinton's Council of Economic Advisers in the late 1990s. She assumed the top Fed job in February 2014.

"She had way more experience at the Fed than any other previous chairman," says Bernanke.

It was during her first stint at the Fed that Yellen met economist and future Nobel laureate George Akerlof; they were married in 1978. The two ended up on the faculty of the University of California at Berkeley, where they collaborated on research that helped set the foundations for New Keynesian economics, a response to the New Classical ideas popular in the 1970s that questioned the efficacy of economic policies and championed unfettered markets. The New Keynesians put more emphasis on market failures and embraced a more important role for government in managing the business cycle; their ideas dominate central bank thinking today.

Yellen puts her experience to use in trying to forge a consensus within the central bank. Before every FOMC meeting, Yellen spends hours one-on-one, trying to understand fellow policy makers' views. "She calls around beforehand, sometimes twice," says Richard Fisher, who stepped down as Dallas Fed president in March after 10 years.

Yellen and the more hawkish Fisher didn't see eye to eye on policy, but he says conversations with her were productive. She didn't try to argue him over to her side. Hearing him out, she'd suggest other factors affecting the economy that he might consider. Fisher says there were times, as a result, when he did not dissent from the Fed's decisions but instead sought to get the language

'The Fed should not be responding to the ups and downs of the markets,' Yellen said.

of the accompanying statement more to his liking.

Yellen, as Bernanke did, lets other policy makers speak in an FOMC meeting before summing up their views and presenting her own. Fisher says she's taken that tactic a step further, drawing on copious notes to summarize not only what's been said but who's said it.

"She's very careful to listen to everybody, to take in everybody's positions," says Chicago Fed President Charles Evans.

When policy makers look at longer-term issues, such as changes to their communications strategy, Yellen lets discussions play out over a number of meetings. What at first seems like a passel of competing views is gradually boiled down to something most can either support or accept, says John Williams, who succeeded Yellen as president of the San Francisco Fed in 2010. "I think it's a very effective strategy," he says.

"You chew it over, you chew it over, and chew it over again until you can't stand it anymore," Charles Plosser says jokingly. He stepped down as president of the Philadelphia Fed in March. He cites as a case in point the long-running deliberations over the mechanics of managing a rate hike at a time when the banking system is awash in cash. "That discussion has been going on for two years at least," he says.

And then there's what Fisher refers to as Yellen's "puckish sense of humor," which helps her win people over. In March, in his last speech as head of the Dallas Fed, Fisher made a somewhat complicated comparison of Yellen to the early Hollywood sex symbol Mae West, who famously said, "I generally avoid temptation unless I can't resist it." His point was that the Fed must not succumb to temptation to put off that first rate hike. "I think I am safe in saying that Janet Yellen is no Mae West," he said.

Rather than being offended, Yellen responded at a reception to mark Fisher's leaving the Fed with her own famous Mae West line, saying Fisher should come up and see her sometime.

Yellen firmly believes the Fed functions best when all views are heard. "Listening to others, especially those with whom we disagree, tests our own ideas and beliefs," she said in a May 2014 speech. Yellen declined to comment for this story.

Such openness, though, doesn't mean Yellen is a pushover. She takes the lead in internal deliberations when necessary. "We all know that Janet Yellen is the chair of the Federal Reserve," Williams says. "She's the person clearly we're looking to for direction and guidance on key issues and key strategies."

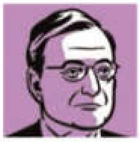
Alan Blinder, a former Fed vice chair, describes her manner this way: "Janet has the important ability to disagree without being disagreeable."

Her extensive experience has benefited Yellen in her public role as the Fed spokesperson, according to Bernanke. From the start, he says, "she knew how to talk to markets. She knew how to talk to the public. Her learning curve wasn't quite as steep." Bernanke is now a distinguished fellow with the Brookings Institution and an adviser to Chicago hedge fund firm Citadel.

'She knew how to talk to markets. She knew how to talk to the public,' Bernanke says. 'Her learning curve wasn't quite as steep.'

Still, Yellen did make a slip early on when she suggested during her first press conference as chair that the Fed could begin raising rates around six months after ending its bond buying. The off-the-cuff remark spooked investors into thinking that liftoff might come in the first half of 2015, earlier than expected.

The Fed chief sought to undo the damage later in the month by promising in a speech to keep the Fed's "extraordinary" support for the economy in place for "some



14 Mario Draghi

Mr. Whatever It Takes

AT THE HEIGHT OF THE EURO-ZONE CRISIS in July 2012, as sovereign bond yields soared, Draghi, the European Central Bank President, delivered the line that has become the ultimate proof of the power of a central banker's words: "Within our mandate, the ECB is ready to do whatever it takes to preserve the euro. And believe me, it will be enough."

He was making the most of the fact that investors put great weight on monetary officials' every utterance—something Janet Yellen, in her way, has done too. Where Draghi differs from his Fed counterpart is that he spoke off the cuff. The whatever-it-takes comment was impromptu, not part of a carefully calibrated communications strategy. No one can accuse Draghi of being too timid.

His boldness has won Draghi enemies. In Germany, in particular, opponents of easy monetary policy are lined up against him. But he nevertheless managed to push through Europe's quantitative easing program, which began in March, after months of diplomacy and alliance building.

In January, after the meeting of his governing council that approved his QE plan, the modest Italian banker was spotted flying home in economy class, relaxing with a game on his iPad. Playing what? Chess, of course.

JEFF BLACK

43 John Taylor

He Wrote the Rule the Fed Isn't Following

THE STANFORD UNIVERSITY PROFESSOR is a brand name in the monetary policy world. In 1993, Taylor came up with a relatively simple equation relevant to central bank benchmark rate decisions. The formula describes the interrelation among inflation, an inflation target, and current economic output versus its potential. It's known today as the Taylor rule.

Most central bankers talk up the utility of Taylor's monetary tool; Yellen praised it as a sensible guide back in 1995, when she was a Fed governor under Alan Greenspan. But that's not the same thing as strictly adhering to it.

Taylor himself reckons the benchmark federal funds rate should be as much as 1.5 percent today, though he doesn't advocate moving there right away because it would shock the economy. Yellen argues that the U.S., still facing head winds stemming from the Great Recession, requires cheaper money.

RICH MILLER

time to come." Coupled with reassuring comments by other policy makers, the Fed chair's pledge succeeded in calming investor fears.

Under Bernanke, Yellen helped the Fed overhaul its communications strategy. (See "Policy Makers: Janet Yellen," October 2012.) Transparent explanation of monetary goals can itself be a policy tool, especially when rates are near zero and there's no room for further cuts.

Yellen is no stranger to Fed credit-tightening cycles. As a member of the FOMC, she played a role when the central bank raised interest rates in 1994 to 1995 and 2004 to 2006. Neither episode went as well as hoped for.

While the 1994-to-1995 increase, which unfolded under Greenspan's leadership, is viewed within the central bank as a success—it led to a soft landing of the economy, paving the way for six more years of growth—it nevertheless had costly side effects. There was carnage in the bond market as the Fed sporadically jacked rates higher. Seeking to avoid the turbulence of that period, Greenspan's Fed adopted a different approach in 2004 to 2006, raising rates in carefully calibrated, quarter-point increases for 17 straight meetings. This approach did avoid roiling markets. Yet in retrospect, many Fed watchers think the plodding, predictable strategy led to excessive risk taking and contributed to the bubble in the housing market.

This time around, Fed officials have signaled they'll try to strike a balance among the methods used in previous tightenings. They promise to let their decisions be driven by the economic and financial data. While steering clear of the metronomic rate increases of a decade ago, the Fed will attempt to provide investors with enough information that they're not caught by surprise.

For now, the main point Yellen and her fellow policy makers have been trying to communicate is that rate hikes, once they begin, will be very gradual.

YELLEN AND HER COLLEAGUES have described what they're trying to do this time as the "normalization" of monetary policy. But that bland phrase belies the difficulties and dangers that lie ahead.

For one thing, the Fed doesn't have the same ability it's had in the past to control the key interbank rate through which it promulgates its policies in the financial system and the economy. Banks have more than $2.5 trillion in excess reserves—funds beyond what they need to hold to meet regulatory minimums—parked at the Fed. So they have relatively little need to use the overnight interbank market. What's more, some of the cash that QE pumped into the economy now sits in money market funds, where the interbank rate has no influence. The central bank has experimented with technical solutions designed to address this.

Also, the Fed is trying to tighten while much of the rest of the world is easing. Central bankers in the euro area, Japan, and China are seeking to boost their economies with monetary medicine. That complicates the Fed's decisions by driving the dollar higher, which can hold down already-too-low U.S. inflation.

Yellen, though, seems determined to press ahead. One of the other times that Yellen appeared a bit amused at the Sept. 17 press conference came when a reporter asked if she worried that perhaps the Fed couldn't escape from near-zero rates. After all, the September rate hike had been scuttled by global events, the questioner said. What if surprises keep coming? Yellen dismissed the idea as highly unlikely. "That's not the way I see the outlook or the way the committee sees the outlook," she said. So, it's liftoff soon. How exactly the next era in Fed policy will play out is probably the better question. BM

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Tracking Rate Expectations

To see how markets around the world are pricing in interest rate moves, you can use the Market Implied Policy Rates (MIPR) function. Type **MIPR <Go>** on the Bloomberg Professional service. The Implied Policy section of MIPR shows a country's benchmark rate that's implied at various tenors along the yield curve. To track implied probabilities of rate changes, type **WIRP <Go>** for the World Interest Rate Probability function. To download a spreadsheet that graphs the U.S. Federal Reserve's dot plot, type **XLTP XDOTS <Go>** 1 <Go>. For Bloomberg Intelligence economic analysis, type **BI ECON <Go>**. For Fed-related data, news, and research, type **FED <Go>**. JON ASMUNDSSON

2 Xi Jinping

President of China

It wasn't the rout in Chinese stocks per se that triggered the global selloff in late August but rather the realization that government steps to halt the turmoil weren't working. The financial world is waiting on Xi and his Communist Party colleagues to show they still have the right touch to run the second-biggest economy.

4 Larry Fink

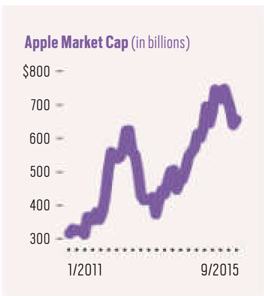
Co-founder, BlackRock

"The effects of the short-termist phenomenon are troubling both to those seeking to save for long-term goals such as retirement and for our broader economy."

—From Fink's April letter to CEOs, part of his anti-activist campaign, backed by his firm's $4.7 trillion under management

CEO, APPLE

3 Tim Cook



Since founder Steve Jobs went on medical leave in January 2011 and the less famous Cook took over, the company's market cap has doubled, making Apple the world's most valuable corporation; profit has soared; cash has piled up; and the company's influence has continued to accrue.

5 Warren Buffett

See page 71.

6 Barack Obama

President of the United States

Even as a lame duck, he has cut a deal with Iran that could open that nation to global business for the first time in a generation and moved ahead on a climate change agenda that's helped push the U.S. coal industry to the brink.

7 Carl Icahn

Chairman, Icahn Enterprises

CAUSE AND EFFECT

The activist investor tweets on June 24 that he sold the last of his Netflix stake, and the shares dive.

Icahn's estimated profit in Netflix shares:	Intraday swing in Netflix on news of his exit:
$1.6 Billion	-2.7%

TOP: JOSH EDELSON/AFP/GETTY IMAGES; LEFT TO RIGHT: LINTAO ZHANG/GETTY IMAGES; OLIVIER MIDDENDORP/HOLLANDSE HOOGTE; BEN BAKER/REDUX; DENNIS BRACK-POOL/GETTY IMAGES; VICTOR J. BLUE/BLOOMBERG

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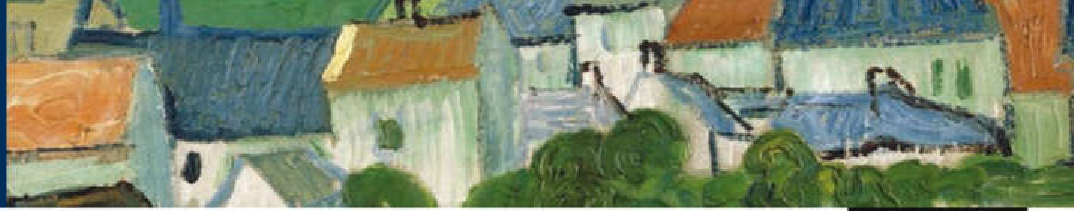

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Magnificent 17,232± sf Beaux Arts Mansion offers an opportunity to re-imagine a substantial private residence in Manhattan. WEB: 00110129. **$42,250,000**. Nikki Field & Patricia A. Wheatley.
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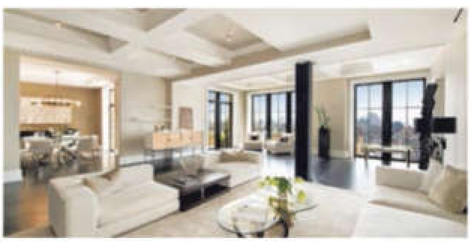

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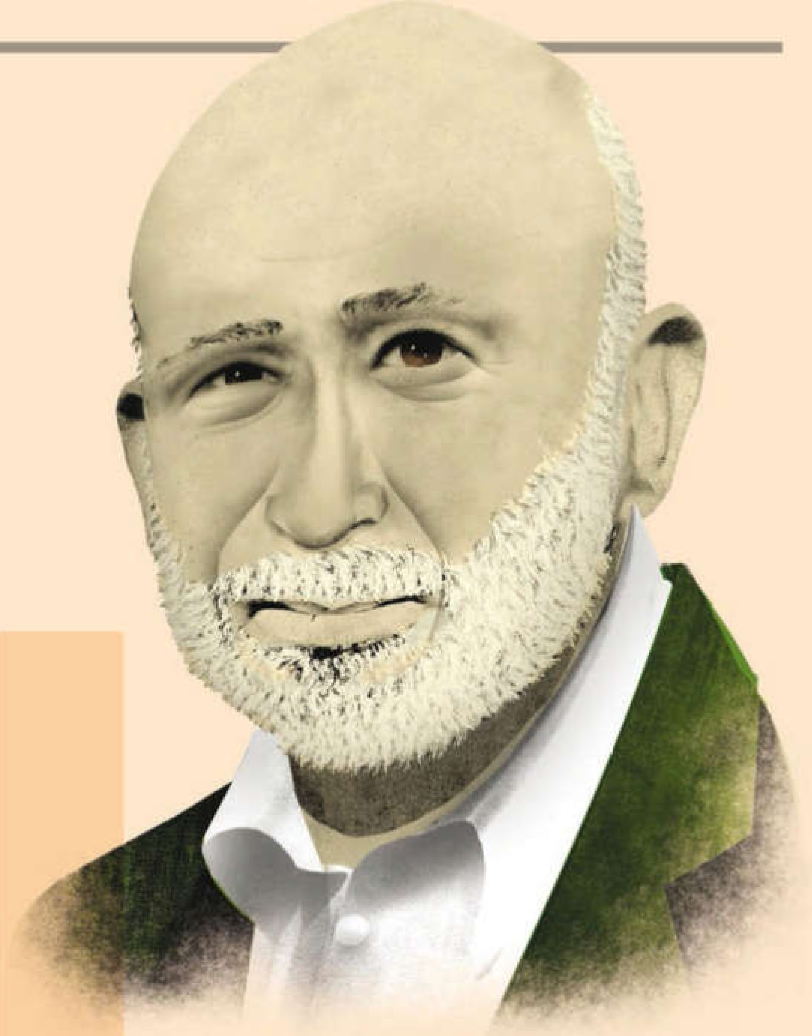
8

His Bank Leads the World in M&A This Year



Lloyd Blankfein

CEO, GOLDMAN SACHS

Because Lloyd Blankfein came from the fixed-income-trading ranks, some investment bankers worried that his rise to the CEO job wouldn't bode well for their part of the firm. Fast-forward a decade, and it's clear that such fears were misplaced. Goldman Sachs has opened a historic lead on its investment banking rivals, advising on more than $760 billion of completed deals in the first eight months of this year, while its nearest competitor was under $500 billion. Goldman worked on six of the seven biggest deals that closed in that period. The bank generated $1.78 billion of advisory revenue in the first half, double Morgan Stanley's total and more than quadruple that of Credit Suisse Group.

Blankfein, 61, has stayed committed to the trading, underwriting, and advisory of a full-service investment bank in the aftermath of the global financial crisis. His stay-the-course, think-long-term mantra has helped Goldman avoid the turmoil that has hobbled some large European banks that used to compete with him more aggressively. Goldman grabbed 30 percent of global merger advisory revenue in the first half of this year among the eight biggest banks, the largest share any firm has won in any six-month period since at least 2006, according to data from Bloomberg Intelligence. Investment banking dominance has helped Blankfein keep Goldman's return on equity, which was 9.7 percent in the first half of this year, ahead of most global banks even as the trading business limps along, hurt by capital rules, regulatory changes, and lack of market volatility (at least until recently).

It may be risky to extrapolate, even with such a large lead, given how league table rankings can be swung by the timing of deals and client selection. And this year has brought the retirement of a handful of the top dealmakers who kept Goldman on a stable footing as it faced reputational issues in the aftermath of the financial crisis. Still, if the M&A boom has plenty of room to run—the firm's executives and analysts say it does—is there another bank that's likely to benefit more?

Blankfein deflects the issue of when he might leave, joking that he's heard that question since day one. For now, he's at the top of his game and seems to be enjoying the job as he leads the bank that made him a billionaire.

MICHAEL J. MOORE

ILLUSTRATION BY **BRIAN STAUFFER**

9

Angela Merkel

GERMAN CHANCELLOR

Mutti Matters Most in Europe

After 10 years in power, she can live with her nickname, Mutti, German for *Mommy*. And in this summer's Greek bailout negotiations, she was the adult in the room, looked to for the final decision you would have to abide by, like it or not. On European issues, it's her views that matter most, and others stake out their positions relative to what Merkel's doing.

She's Clever

"Angela Merkel is by far the most astute politician in Europe. There is no doubt about it."

YANIS VAROUFAKIS, FORMER GREEK FINANCE MINISTER

Generous

"To avoid risking a breakup with France, Angela Merkel had to give in. Tsipras got a pretty good deal out of that. These decisions show once and for all that the euro zone will turn into a 'transfer union.'"

HANS-WERNER SINN, PRESIDENT, IFO INSTITUTE FOR ECONOMIC RESEARCH

Stingy

"Europe, she declared, should emulate the famously thrifty Swabian housewife. This was a prescription for slow-motion disaster."

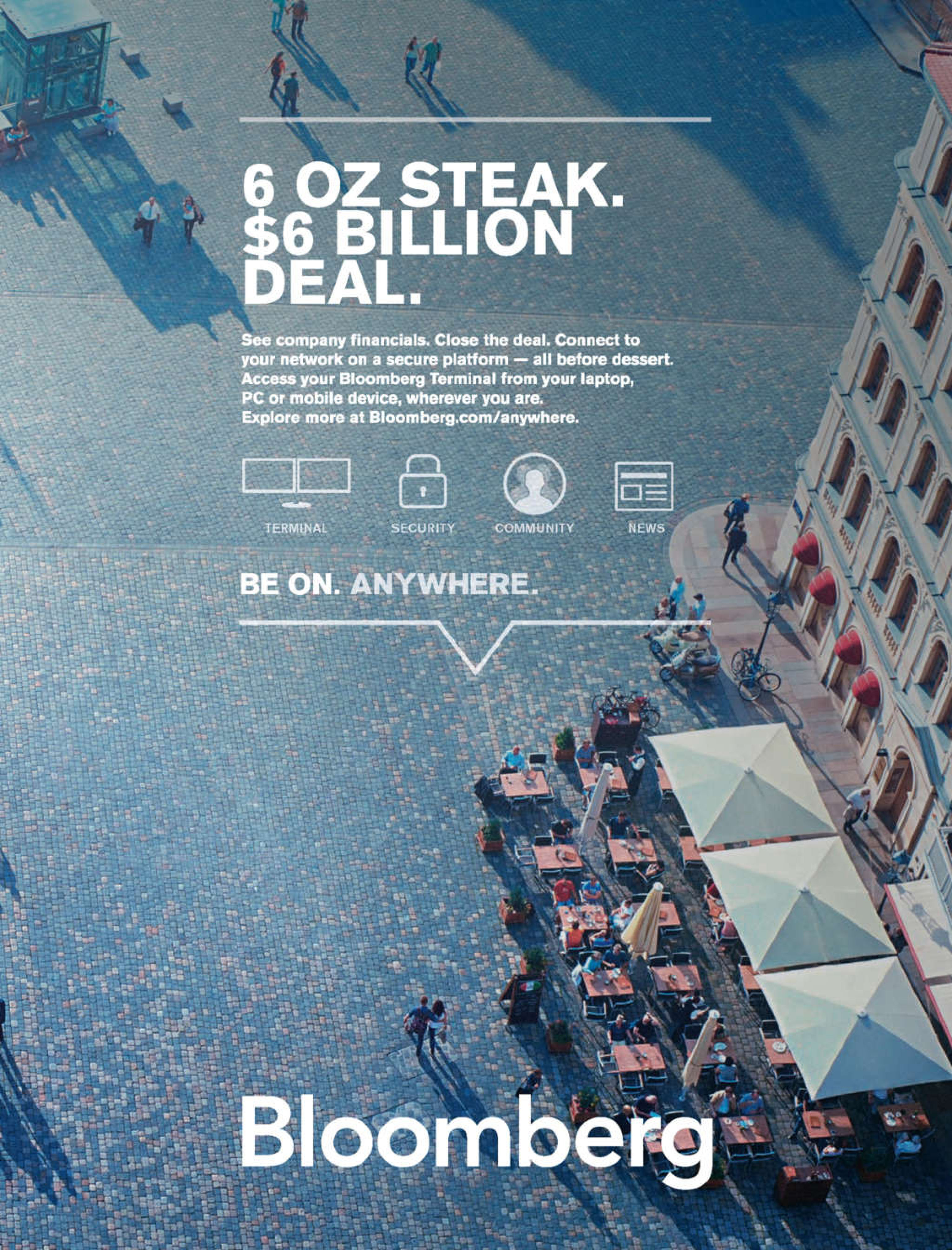
PAUL KRUGMAN, *NEW YORK TIMES* COLUMNIST

Smart

"She both understands the big picture and is very well versed in the minute detail. On top of that, she has been able to steer a Germany which has made a comeback economically and politically."

ALEXANDER STUBB, FINNISH FINANCE MINISTER

ILLUSTRATION BY **EVGENY PARFENOV**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BY KATRINA BROOKER

10

Reid

PHOTOGRAPH BY ROBERT MAXWELL

How does the entrepreneur-turned-venture investor find the next billion-dollar idea? Networking, networking, networking.


offman

AS FAR AS HIGH SCHOOL BULLIES GO, THE ONE tormenting Reid Hoffman was pretty relentless. Nearly every day for a year at the Putney School in Vermont, the kid found new ways to persecute his victim: He took the hinges off Hoffman's dorm room door, threw his clothes out the window, turned his bed upside down, and wrote nasty notes on his wall. Hoffman, a transplant from California who spent much of his time playing Dungeons & Dragons or working on a Commodore in the computer lab, probably seemed like an easy target—an outsider who wouldn't put up much of a fight.

That may have been the last time anyone ever underestimated Reid Hoffman.

Taking his time, Hoffman sized up his harasser and took note of the cliques, dorm politics, hierarchies, and other high school dynamics. And then he figured out what to do. "I walked in to talk to him the first day of the next year, and I said, 'Let me be clear. If one thing goes wrong in my room this year, I am going to presume it was you. I am not going to get evidence. I am going to presume it was you and break everything in your room.'" The kid was so taken aback by the unexpected show of force, he never touched Hoffman's stuff again.

Reid Hoffman—entrepreneur, executive, angel investor, venture capitalist, networker, power broker, and mediator—has built a career out of understanding how people act and react within social systems, everywhere from a New England prep school to, well, the entire professional world. For more than two decades, Hoffman, 48, has built some of the tech world's most game-changing companies. As part of the founding team of PayPal (aka the PayPal Mafia), he tapped into people's insecurities about sharing credit card information online to build a safe Internet payment empire that was the precursor to Apple Pay and other digital wallets. At LinkedIn, the company he co-founded in 2002, he seized on the motivations of millions of ambitious, career-minded professionals to connect with each other to get ahead. Two years later, as an angel investor, Hoffman foresaw how a young Harvard undergrad's idea to digitize college "face books" could one day become a powerful tool for connecting far-flung friends and brokering new relationships. (Hoffman was among the first angel investors in Facebook. He put in $37,500 when the startup was valued at $5 million, according to TechCrunch. Today, its market capitalization is $260 billion.)

"He saw the future of social earlier than anybody else, how it would reorder how people would talk to each other, relate to each other," says Herb Allen, CEO of Allen & Co., recalling an appearance by Hoffman nearly a decade ago at the investment bank's annual conference in Sun Valley, Idaho. "It was like having Albert Einstein tell us about relativity."

To veterans such as Allen, Hoffman is part sage, part Cassandra, a guide who can help them understand the increasingly important technologies that have the potential to upend businesses and mint new fortunes. Now a venture capitalist at Greylock Partners, Hoffman gets a first look at pretty much any idea that could have an impact on corporations and citizens well beyond Silicon Valley, from Wall Street to Shenzhen. He and his partners at Greylock have backed some

COURTESY OF GREYLOCK PARTNERS (3)

of the biggest game changers of the past decade, including Airbnb, Instagram, and enterprise software maker Workday. The firm is also betting on buzzy up-and-comers such as video app Meerkat, Docker (open-source platform), and Xapo, a major bitcoin bank.

Hoffman's own network is one of the best in tech. He's part of a handful of interlocking groups whose members frequently co-invest in startups, recommend employees to one another, sit on corporate and nonprofit boards together, and regularly gather at each others' homes and private conferences to hash out ideas that could change the world. Hoffman's speed dial includes Tesla Motors and SpaceX co-founder Elon Musk, fellow investor Marc Andreessen, Facebook COO Sheryl Sandberg, investor Peter Thiel, and New Jersey Senator and fellow Stanford alum Cory Booker.

But Hoffman's golden Rolodex only partly explains his pull in Silicon Valley and beyond. In an industry full of big brains and big egos, Hoffman is one of the few people who can bring rivals or disparate views together. "He has the trust of all parties. He's the guy people go to when they need someone to mediate a conflict," says Joi Ito, co-founder of companies such as Digital Garage and Infoseek Japan and the head of MIT's Media Lab. Adds Ito: "In Silicon Valley, Reid is the OG." (For anyone who has not listened to a rap song over the past 20 years, that means "Original Gangster.")

FIVE YEARS AGO, AS A newly minted venture capitalist, Hoffman brought his partners at Greylock an idea that started a fight. Three young men had launched a site to help people rent out their spare rooms but had yet to attract many users. They were looking for funding. "There was a lot of skepticism, including from me—I thought it was glorified couch surfing," says David Sze, Greylock's senior managing partner, recalling how he openly clashed with Hoffman over the idea.

It takes a lot to persuade Greylock's partners to back a company. The partners and associates see thousands of pitches a year, and they set a high bar. The firm has one of the best track records in the Valley, with about a dozen companies valued at more than $1 billion in its active portfolio. Its partners are legends in their own right. Aneel Bhusri, the firm's advisory partner, was a top executive at PeopleSoft and co-founded Workday, where he continues to serve as full-time CEO. John Lilly was CEO of Mozilla. Managing partner Sze led Greylock's investments in Facebook and LinkedIn.

Around Greylock, the battle over its investment in Airbnb is famous. Sze argued against it: Who would want to let some stranger found on the Internet into his home? Who would want to stay? The idea felt sketchy, unworkable. To Hoffman, however, it felt like a new economic system.

"For the vast majority of the middle class, the biggest asset they have is illiquid—their residence," Hoffman says, recalling the argument he used to persuade his partners. He described how mobile phones and apps, digital cameras, and faster Internet connections could unlock billions of dollars pent up in people's homes. He believed that this little "couch surfing" site could connect a global community of travelers and hosts, where online reputations mattered as much as in the real world. He argued that the financial incentives would motivate that community to monitor itself, to keep each other honest. "He was evocative of not getting stuck in what it looks like today, but what it could look like in the future," Sze recalls. Hoffman ultimately won the debate. Greylock agreed to lead a $7 million round in Airbnb in 2010. Today Airbnb is valued at close to $25 billion.

HOFFMAN GREW UP THE only child of two lawyers from Berkeley, California. His father worked with the Black Panthers. Family lore has him, at times, sleeping on the floor

Reid's world: **Hoffman** in conversations with, from left, investor **Peter Thiel**, inventor **Elon Musk**, and Disney chief executive **Bob Iger**

of its headquarters. His parents, who divorced when he was a year old, encouraged him intellectually and pushed him to be independent. He applied to boarding school without telling them, partly just to see what would happen. A top student, he spent a lot of time reading and playing the fantasy game RuneQuest with his roommate. He was close to his teachers. He still remembers one long, late-night talk with his biology teacher about whether humans are essentially advanced robots.

Still, it wasn't until he got to Stanford in 1985 that Hoffman started figuring out where he fit in. He was surrounded by kids just like him—brainy, offbeat, ambitious. Walking the halls those days were future entrepreneurs such as Thiel and Jerry Yang, co-founder of Yahoo! Here, he met some of the most important people in his life, including his future wife, Michelle Yee. (The couple married in 2004.)

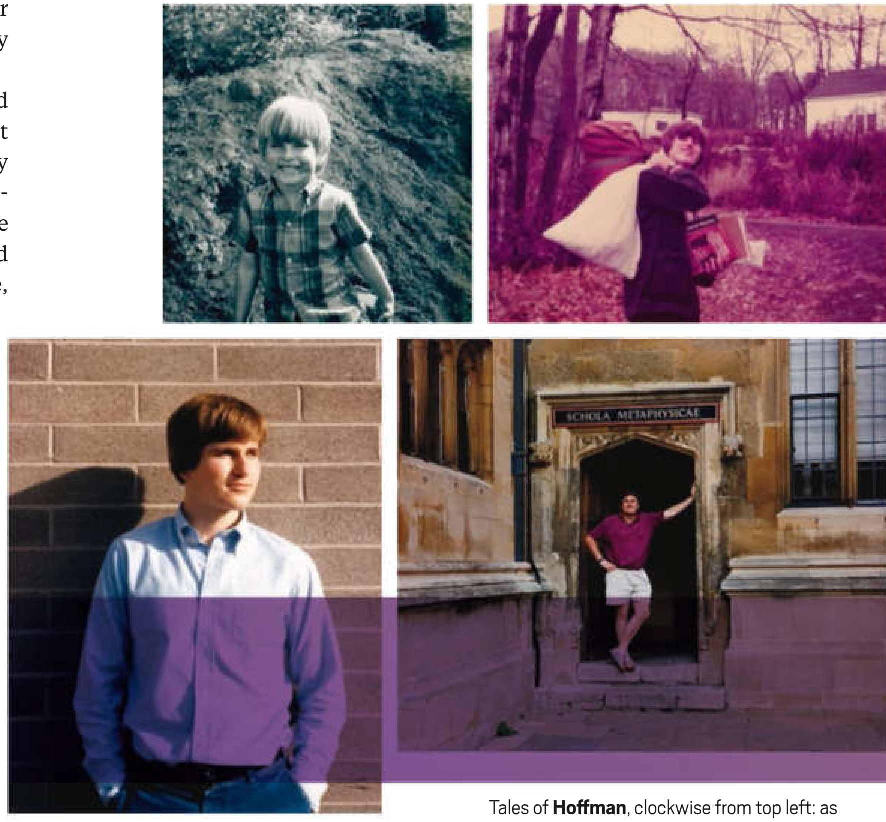
At Stanford, Hoffman was at the center of a group of students who opted for a new major called symbolic systems, which pulled together coursework from computer science, linguistics, philosophy, artificial intelligence, and other disciplines. It was tailor-made for Hoffman, who was not only hooked on technology but also interested in people and how they work within networks and systems. Hoffman was the eighth person to declare the major; it has since become to Silicon Valley what a Harvard MBA degree is to Wall Street. Symbolic systems alums include Yahoo CEO Marissa Mayer, Instagram co-founder Mike Krieger, and Scott Forstall, who helped build the iPhone.

During this time, Hoffman began to examine how humans and machines connect across a range of disciplines—from linguistics to artificial intelligence. Suddenly, what started out in high school—his navigating cliques and dorm dynamics—seemed to connect to bigger, broader social systems that existed all around the world. "I started thinking about the fact that what I was operating in was networks," says Hoffman. He began contemplating how to use software and algorithms to accelerate or enhance what people do naturally—try to connect to one another.

After graduating from Stanford in 1990, Hoffman won a Marshall Scholarship to study at Oxford, where he spent three years studying philosophy. Silicon Valley drew him home. By the mid-1990s, the Internet era was heating up: Andreessen and Jim Clark were launching Netscape, and Larry Page and Sergey Brin were starting Google. (Andreessen went on to start Andreessen Horowitz, a leading venture firm in which Bloomberg LP, the parent of *Bloomberg Markets*, is an investor.)

Hoffman, after midlevel stints at Apple and Fujitsu, joined the entrepreneurial scrum. His idea: to use the Internet to connect buyers and sellers, people seeking roommates, and more, a sort of interactive classified ads section. The company, called SocialNet, failed, in part, Hoffman says, because users could remain anonymous, which undermined trust in the system. He would remember this lesson years later, when he launched LinkedIn. Hoffman says he left SocialNet after clashing with the board about strategic direction.

He wasn't out of a gig for long. In 2000, as Hoffman was wrapping up at SocialNet, his friend and Stanford classmate Thiel asked him to join his startup, PayPal. The company had one big customer, EBay, which encouraged its buyers and



Tales of **Hoffman**, clockwise from top left: as a child in California, at the Putney School in Vermont, at Oxford on a Marshall Scholarship, and as a Stanford undergraduate

sellers to use PayPal in lieu of credit card transactions. But EBay also had acquired Billpoint, a competing payment system. "Peter's mission to me was, 'Make sure EBay will not block us from the platform,'" recalls Hoffman.

Hoffman says he remembers thinking about how EBay's top sellers—who were using PayPal to run their auctions—could help apply pressure on EBay. He reached out to mom-and-pop auctioneers, many of whom made it clear that they would raise a riot over losing access to PayPal. EBay eventually nixed Billpoint and, in 2002, bought PayPal for $1.5 billion. EBay confirms Hoffman's efforts to "rally the

COURTESY OF REID HOFFMAN (4)

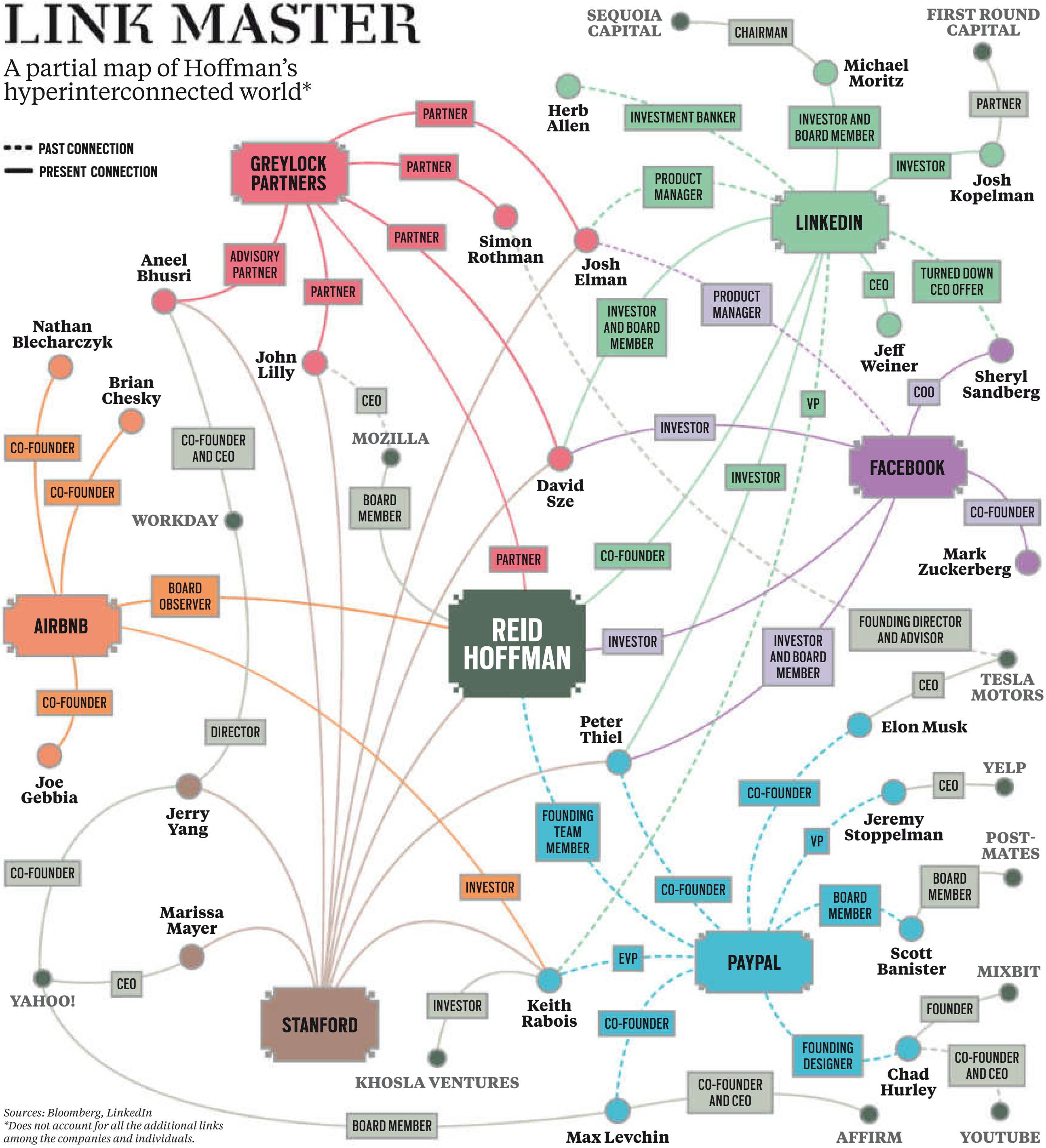
community effectively."

Hoffman is, by all accounts, a master tactician. Friends say he's almost unbeatable at Settlers of Catan—a board game popular in Silicon Valley in which players compete to build new societies within an imaginary world. Those who have worked closely with him say he has an uncanny way of reading people, figuring out what makes them tick. "You'd be in a meeting with Reid, and he would have this ability to X-ray the motives people have," says Thiel.

In 2002, Hoffman assembled a team of ex–SocialNet and PayPal colleagues to start LinkedIn. The professional networking site was not an immediate success. At first, very few people were willing to post their résumés on an untested site. The company almost failed in its first year. But Hoffman had learned an important lesson from SocialNet. To survive, LinkedIn had to find ways to motivate users to post accurate information, to become what it now calls "the professional profile of record." Hoffman understood that people would be willing to provide

LINK MASTER

A partial map of Hoffman's hyperinterconnected world*



Sources: Bloomberg, LinkedIn
**Does not account for all the additional links among the companies and individuals.*

information about themselves in order to connect with peers, especially if it could lead to better jobs or professional advancement. LinkedIn now has over 380 million users globally. It is valued at $25 billion.

27 Marc Andreessen

The startup investor is famous for his "tweet-storms." A sample:

Marc Andreessen @pmarca
Bubble might pop -> Raise more $ than needed -> Can solve problems with $ -> Overhire -> Slow progress -> Ruin culture -> Destroy company.
2:08 AM - 16 Jun 2015
538 631

Marc Andreessen @pmarca
"I'll raise more $ than I need & keep the extra $ as a buffer" becomes "I can solve problems with $ so I'll spend the buffer" 100% of times.
2:11 AM - 16 Jun 2015
166 254

Marc Andreessen @pmarca
Bubble might pop -> Take preemptive $ at high valuation -> Spend more -> Need to raise again -> Valuation too high -> Down round -> Death.
2:15 AM - 16 Jun 2015
112 141

Bloomberg LP, the parent of *Bloomberg Markets*, is an investor in Andreessen Horowitz.

HOW DOES A FOUNDER score a meeting with one of Silicon Valley's most sought-after investors? By networking, of course. "The first meeting is always on reference," says Hoffman, which means an entrepreneur needs to work his or her connections to find someone to broker an introduction.

Hoffman says he can quickly sort ideas and companies into a few buckets. In about 30 percent of cases, he muses, "you go, 'This is interesting and I would like to know more.'" In another 30 percent of situations, it is harder to tell: "Kind of maybe this is useful, but I don't have any good data. And then there is 30 where the answer is no."

And in 10 percent of cases, Hoffman gets really excited. Last year, one of Hoffman's partners suggested he meet an executive who'd just left his job at one of the world's largest tech companies and was trying to figure out his next move. The two met for sushi, and, almost immediately, Hoffman sensed something big in the ambitious techie sitting across from him. "You could tell right away he was a huge talent," says Hoffman. That dinner turned into more conversations and ultimately an idea for a new company. Hoffman acknowledges that the scheme could change the world or flame out, but Greylock is now incubating it in stealth mode (Silicon Valley speak for *top secret*) and can't publicly discuss its details.

Hoffman spends almost all of his time, including evenings and weekends, meeting with entrepreneurs, other investors, professors, and politicians. Friends say he has boundless energy when it comes to learning about new people and ideas. He plans dinners and events around topics he's interested in. Once, he arranged for a group of his friends, including Herb Allen and Jerry Yang, to spend the day at a genomics lab studying the DNA of different viruses. Another event he helps organize, dubbed "The Weekend (to be named later)," convenes an eclectic group. One year, Hoffman invited a prosecutor from the Jeffrey Dahmer trial who later left the law to become a Jesuit priest.

Observes Victor Koo, CEO of Youku Tudou and one of China's most successful entrepreneurs: "In China, we talk about this concept called *guanxi*; it means building relationships—Reid is a master at it." Koo says he got to know Hoffman nearly a decade ago, when his video site (think YouTube for China) was just getting off the ground. Long before most Silicon Valley investors began to poke around China's startups, Hoffman struck up a friendship with Koo because he wanted to learn about China through other founders.

Back in his office in Menlo Park, Hoffman is trying to answer the question that everyone seems to ask him: What's next? He closes his eyes, almost as though he's trying to form a picture in his head. A moment later, he opens them and shakes his head. Today, he's got nothing (or he's not telling). But that could change at any moment. As he once wrote on his blog: "When I walk through an office, I see networks. I know that makes me sound like the kid from *The Sixth Sense*. But I don't see dead people. I see networks." BM

BLOOMBERG TIPS

Following Greylock and Hoffman

You can use the suite of private equity functions on the Bloomberg Professional service to dig into Greylock's deals. Type **PE <Go>**, enter *GREYLOCK* in the field, and click on the Greylock Partners item in the list of matches. In the Description screen, click on Portfolio to display a list of companies the firm has invested in. For details of Greylock's funding for Rubrik, for example, click on the data backup company's May 26 round and then type 11 <Go>. To set an alert that will notify you when Reid Hoffman tweets, type **TWTR <Go>**, enter *REID HOFFMAN*, and click on the matching handle. Click on the Display & Edit button and select Set Alert Delivery. JON ASMUNDSSON


Advice you can
trust from a
top-ranked equity
brokerage.

11 Jamie Dimon

CEO, JPMorgan Chase

He kept JPMorgan profitable during the financial crisis and produced record earnings in four of the past five years. Shares at the largest U.S. bank have climbed 59 percent since the end of 2005, when Dimon took the reins. Dimon, who himself became a billionaire in June, also has presided over the $36 billion JPMorgan has paid out in litigation and legal costs since the beginning of 2009. "Like the basketball player LeBron James, JPMorgan is good at both offense and defense," says Mike Mayo, a CLSA analyst.

12 Abigail Johnson

CEO, Fidelity Investments

$5.2 TRILLION

Total customer assets Fidelity oversees

13 Narendra Modi

Prime Minister of India

1. Won election to lead the world's biggest democracy in May 2014 by the widest margin in 30 years.
2. Investors cheered his victory by pouring a record $42 billion into Indian stocks and bonds last year.
3. Modi's pro-business agenda is poised to lift India over China in GDP growth this year.

14 Mario Draghi

See page 42.

15 Jeff Bezos

Founder, Amazon.com

He's this year's top-performing tech billionaire, with a **61 percent** surge in his fortune through Sept. 8.

16 Ana Botín

CHAIRMAN, BANCO SANTANDER

Botín is a fourth-generation leader at the Madrid-based bank, heading what's now the euro zone's most valuable financial institution. Stock market investors value Santander more highly than Germany's Deutsche Bank and France's Société Générale combined.

€73.2 Billion

SANTANDER MARKET VALUE ON SEPT. 10

€69.7 Billion

DEUTSCHE BANK AND SOCIÉTÉ GÉNÉRALE COMBINED MARKET VALUE ON SEPT. 10

TOP: LEFT TO RIGHT: DAVID A. GROGAN/CNBC/NBCU PHOTO BANK/GETTY IMAGES; ESSDRAS M. SUAREZ/THE BOSTON GLOBE/GETTY IMAGES; DANIEL BEREHULAK/THE NEW YORK TIMES; MARTIN LEISSL/BLOOMBERG; MIKE KANE/BLOOMBERG; CARLOS ALVAREZ/GETTY IMAGES (BOTÍN)

17

Jorge Paulo Lemann

The 3G Capital co-founder and Brazil's richest man has investors cheering and rivals struggling to compete with his beer and snack food megadeals.

BY NOAH BUHAYAR AND BLAKE SCHMIDT

ILLUSTRATION BY MATT DARTFORD/FLIP CG

The Brazilian dealmaker reshaping the global food and beverage industry doesn't have much to say for himself, at least not in public. Jorge Paulo Lemann orchestrated H.J. Heinz's $46.7 billion merger with Kraft Foods Group in July, turned struggling Burger King into a lucrative bet for shareholders, and formed the world's biggest beer company, Anheuser-Busch InBev, all without personally hosting a press conference on the deals. He values his privacy so much that he asks associates to keep mum about him. Yet one famous investor is eager to talk.

"I was hoping it was Jorge Paulo instead of you when the phone rang," Warren Buffett quips in late August when asked about Lemann and his investment firm, 3G Capital, which was formed in 2004. "They're already doing big things, but they'll do even bigger things. They set extremely high standards for themselves, and then they exceed them."

Lemann is wasting little time living up to that billing. AB InBev, which he controls with other Brazilian billionaires and wealthy Belgian families, said on Sept. 16 that it plans to make an offer for SABMiller, home to such brands as Peroni and Grolsch. A deal would unite the world's top two brewers and create a company that generates about half of the industry's profit.

Backed by more than $20 billion from Buffett's Berkshire Hathaway, Lemann, a silver-haired former professional tennis player, has put his stamp on entire sections of the economy en route to becoming the richest person in Brazil—with a net worth of $24.5 billion on Sept. 8, according to the Bloomberg Billionaires Index. He's a takeover artist who loves high-profile brands and hates companies with unnecessary costs—including people. Lemann, 76, forged a corporate culture based on merit and recruited aggressive managers to put his ideas into practice. His executive team has been so effective at boosting profits that competitors feel compelled to change how they do business—or risk becoming Lemann's next target.

Lemann isn't shy about showing off his ambitions behind closed doors. Just months after he formed Anheuser-Busch InBev in November 2008, Lemann and 3G's other billionaire co-founders, Carlos Sicupira and Marcel Telles, met with staff at the investment firm's midtown Manhattan office. Over a Cipriani-catered lunch, someone asked Lemann what his dream acquisition would be. "We'd love to take a look at Coca-Cola," he replied. In Lemann's view, according to a person at the meeting who asked to remain anonymous, the soft-drink maker was ripe for new managers to eliminate costs—including most of Coke's nearly 100,000 employees. "We could run it with 200 people," Lemann said jokingly. Both he and 3G declined to comment for this story, as did a Coca-Cola spokesperson.

Lemann's comment presaged his run of splashy takeovers—and the ensuing debate over his tactics. The next year, 3G paid $3.3 billion to buy Burger King from investors, including Goldman Sachs, TPG Capital, and Bain Capital. Lemann's team sold all but 52 of the company-owned stores to franchisees, defying conventional wisdom that fast-food chains had to own their restaurants to understand customers. By the time Burger King announced its takeover of Canadian doughnut chain Tim Hortons in August 2014, growth in same-store sales at the Home of the Whopper was outstripping that at McDonald's. "The turnaround on Burger King was brilliant," says Luiz Cezar Fernandes, who co-founded investment bank Banco Garantia with Lemann in the 1970s. "I think Buffett was watching closely."

He was. Buffett, 85, says he passed on getting involved with Burger King because of its rocky past. In 2013, Lemann orchestrated the $23 billion acquisition of ketchup maker Heinz. This time, Buffett was ready to join. He bought half of the common stock for $4.25 billion and preferred shares for $8 billion. 3G immediately installed its own managers. They slashed 7,000 jobs, shuttered five factories, and made departments justify expenses from scratch each year. Margins on adjusted earnings rose to 26 percent from 18 percent in the first year and a half, paving the way for Heinz to take over Kraft.

Now, Kraft plans to cut 2,500 workers to help reap $1.5 billion in annual savings by 2018. Even small perks are gone: The company yanked refrigerators stocked with free cheese sticks and other snacks after the deal closed. Buffett made out handsomely. When Kraft Heinz began trading in July, the market valued Berkshire's stake at $24 billion, more than double what Berkshire had paid for the common stock and a special dividend to Kraft shareholders.

Lemann's critics say his approach is harsh and that he and his partners benefit as others lose. The newly merged Kraft Heinz is pushing 15,000 retirees onto private health exchanges to reduce costs. Under 3G, Heinz's presence in Pittsburgh is fading along with its local workforce—a complaint echoed in cities from Madison, Wisconsin, to Leamington, Ontario. "They're cutting back the fat," says Audrey Guskey, a marketing professor at Pittsburgh's Duquesne University.

"And Pittsburghers tend to be a part of that fat."

Buffett says 3G makes changes quickly and is fair with severance packages. "I do not believe in seeing how long you can spend to take a tooth out," he says.

3G's Burger King strategy has endured its own bashing. After the chain acquired Tim Hortons, U.S. Senator Elizabeth Warren and others branded the move a tax dodge. The new holding company is based in Canada, where the corporate tax rate is lower than in the U.S. The company and Buffett, who put up $3 billion in financing, said taxes didn't drive the deal. But the merger came as more U.S. companies were called out for moving abroad to lower their tax burden.

Competitors are scrambling to deal with 3G's willingness to cut deeper than anyone else. 3G and Berkshire "have pulverized the food industry market, particularly in America, with serial acquisitions," Nestlé Chairman Peter Brabeck-Letmathe said at the company's annual meeting in April.

Still, CEOs can't help but copy Lemann's moves. Kellogg, Campbell Soup, and Mondelēz International, the snack foods company that was spun off from Kraft in 2012, are implementing versions of 3G's budgeting approach.

Bill Ackman is betting he'll benefit from the trend. The activist hedge fund manager amassed a $5.6 billion stake in Mondelēz this year after seeing what Lemann's people could do. His Pershing Square Capital Management was among backers who put up $1.4 billion to help 3G take Burger King public in 2012. "They're very long-term shareholders, incredibly disciplined," Ackman said of Lemann's team in August. "There is a lot to admire about them."

Buffett, too, emphasizes that Lemann builds and holds companies. Lemann and his partners bought Brahma, a small Brazilian brewer, in the 1980s and used it to amass an empire that now includes Budweiser, Beck's, and Stella Artois. "They started out with a nothing little brewery in Brazil, and in not many years, they've become probably the No. 1 beer operator in the world," Buffett says.

Lemann has long avoided the spotlight, especially since a 1999 failed kidnapping attempt on his children in São Paulo. The children's driver was shot in the arm and survived. Lemann now splits his time among a home base in Switzerland, his native Brazil, and the U.S. He keeps his wardrobe understated, favoring khakis and button-down shirts to suits.

Much of Lemann's success stems from the loyal protégés—starting with Telles and Sicupira—whom he's fostered over five decades. Lemann attracts new managers by funding scholarships to Harvard, Stanford, and other A-list universities. He paid for the schooling of Carlos Brito and Bernardo Hees—now the CEOs of AB InBev and Kraft Heinz, respectively. His

DINING WITH LEMANN

The Brazilian dealmaker controls some of the world's best-known food and beverage brands.

NET WORTH:
$24.5 B*

AB INBEV
$17.9 B
Brands include Budweiser, Corona, Stella Artois, Beck's, Hoegaarden, Leffe, Bud Light, Michelob Ultra, Skol, Brahma, Antarctica, Quilmes, Jupiler, Victoria, Modelo Especial, Klinskoye, Sibirskaya Korna, Chernigivske, Harbin, Sedrin, and Cass.

SÃO CARLOS EMPREENDIMENTOS
$75.4 M
Real estate holdings

KRAFT HEINZ
$4.8 B
Brands include Kraft, Heinz, Oscar Mayer, Ore-Ida, Kraft Macaroni & Cheese, Classico, Velveeta, Weight Watchers Smart Ones, ABC, Capri Sun, Wattie's, Kool-Aid, Jell-O, Philadelphia, Golden Circle, Lunchables, Planters, Pudliszki, Maxwell House, Grey Poupon, Master, Honig, Plasmon, and Quero.

RESTAURANT BRANDS INTERNATIONAL
$2.0 B
Burger King, Tim Hortons

LOJAS AMERICANAS
$818 M
Lojas Americanas, B2W

Figures are as of Sept. 8.
**Includes $1.25 billion in liabilities.*
Source: Bloomberg

PHOTO ILLUSTRATION BY **MATT HERRING**

LEMANN: SCOTT OLSON/GETTY IMAGES

‘I love the idea of partners who are going to do big things,’ Warren Buffett says of working with Lemann and 3G.

family foundation, Fundação Lemann, is trying to revamp Brazil’s eduction system. It has sponsored 305 scholars for postgraduate degrees in public policy and plans to reach more Brazilians via methods such as online training. “I proposed to the board a goal of 1 million people by 2018,” says Denis Mizne, CEO of Fundação Lemann. “They came back with 30 million.”

Lemann’s life story, popular lore in Brazil, is a powerful recruiting tool. Born in 1939 in Rio to Swiss parents, Jorge Paulo was voted most likely to succeed at the American school where he honed his English. Even so, he spent much of his time catching waves on Arpoador, Rio’s famed surfing beach. He also excelled at tennis, playing in Wimbledon and twice competing in the Davis Cup, though he never won a match at either event.

Lemann’s father, who died when Jorge Paulo was a teenager, wanted to expand the family’s cheese business in Brazil. His mother had grander plans. She prodded her only son to apply to Harvard. His father “thought relatively small,” Lemann said at a videotaped event in April 2014.

At Harvard, Lemann never got used to the New England winters. He crammed using old exams he discovered in the library and got his economics degree in three years, according to a speech he gave on his experience. After stints at Brazilian and Swiss financial companies, Lemann joined a group of traders in 1971 to take over a small brokerage called Garantia. They turned it into the nation’s premier investment bank that soon was helping Philip Morris and Colgate-Palmolive expand in Latin America’s largest economy.

Lemann got to know Telles and Sicupira at the bank. Mostly staffed by men in their 20s, Garantia had the feel of a boys’ club. Potential hires were asked about their sex lives and drug habits to weed out recruits that might be easily rattled, says co-founder Fernandes. Telles and Sicupira, now Brazil’s third- and fourth-richest men, respectively, joined Lemann on spearfishing trips, according to a 2013 book called *Sonho Grande* (*Dream Big*). The trio sported their diving watches at work as emblems of a blossoming partnership.

Lemann honed his management philosophy by importing American-style meritocracy in the 1970s and 1980s. He and Sicupira visited Sam Walton and saw how Wal-Mart’s founder pinched suppliers and controlled inventories. They applied those lessons at Lojas Americanas, a retail chain they acquired in 1982 in Brazil’s first hostile takeover. At Garantia, they adopted the Goldman Sachs partnership model and bonus pay. From General Electric CEO Jack Welch, they borrowed the rule of rewarding the top 20 percent of workers, keeping another 70 percent, and firing the bottom 10 percent. “We grabbed the best practices of other places and packaged it into a thing that became our culture,” Lemann said in a video posted on YouTube in April 2014.

Lemann stood out for taking big risks when Brazil’s sky-high interest rates meant investors could make fat returns simply by parking money in fixed income. Before the Asian financial crisis in 1997, Garantia sold insurance against losses on Brazil’s government bonds. When the contagion spread, the bank lost hundreds of millions of dollars. Lemann’s reputation suffered.

“I don’t know how they sleep at night,” says Raul Boesel, a Brazilian race car driver. He lost about half of the $3 million he’d invested, according to *Sonho Grande*. After Boesel aired his grievances, Brahma, the beer company Lemann and his partners controlled, canceled his sponsorship.

The partners sold Garantia to Credit Suisse in 1998, moving on to GP Investments, a private equity firm Lemann had helped set up. They quickly learned it was easier to trim an ailing business that had brand recognition than to build a new one from scratch. Looking beyond Latin

Special **ketchup and mustard bottles** feature Warren Buffett and Charles Munger of Berkshire Hathaway, which worked with 3G to buy Heinz and later combine it with Kraft.

RICK WILKING/LANDOV

America, Lemann joined Gillette's board in 1998. Buffett was a director at the razor maker—although his relationship with Lemann wouldn't deepen until later. "I didn't really get to know him that well until years after I should have," Buffett says.

Bill Gantz, a board member at the time, recalls the meetings, which at one point included private equity titan Henry Kravis. There was potential for big egos, but it was a collegial group, Gantz says. While Buffett lit up the gatherings with banter, Lemann was more reserved. Even then, his ambition was apparent. "I thought at that time he was going to move the center of his business beyond Brazil," Gantz says.

Corporate America got its first big taste of Lemann with Anheuser-Busch. Using a controlling stake in Belgian brewer InBev, he made an unsolicited, debt-fueled bid for the Budweiser brewer.

Lemann's managers quickly found ways to scale back. Anheuser-Busch fired about 1,400 people, or roughly 6 percent of its U.S. workforce. Flights on corporate jets were out, as was free beer. Investors loved it. AB InBev's stock has soared fivefold since the merger, giving the company a $176 billion market value on Sept. 8.

On his home turf, business leaders view Lemann as a pioneer of American-inspired efficiency. But he isn't above accepting some Brazilian-style corporate welfare. BNDES, the nation's development bank, disclosed in June that AmBev, the Brazilian unit of AB InBev, received below-market rates on loans for 1.8 billion reais ($464 million) from 2012 to 2014. The bank's biggest subsidized loans usually go to "national champions," which take advantage of state subsidies to undercut competition.

Like many of the champions, Lemann's companies are close to the political establishment. AmBev was a top campaign financier to the ruling party and, along with Lojas Americanas, has sponsored Luiz Inácio Lula da Silva's speaking engagements since he left the presidency. The bank faces a congressional inquiry focused on loans made during the era of Lula and his handpicked successor, Dilma Rousseff. The bank has denied any wrongdoing. Neither AmBev nor 3G has been implicated. AmBev said its campaign donations "follow the rules of Brazilian law; they are absolutely transparent."

Some analysts question the limits of Lemann's cost cutting. McKinsey & Co. estimated in February that AB InBev's market share in the U.S. had slipped 2.4 percentage points from 2009 to 2014 as consumers embraced craft beers. Heinz's share has dropped in 65 percent of its offerings, from bullion to frozen dinners. "You can't cost cut your way to prosperity," says Brian Yarbrough, an analyst at Edward Jones.

Lemann's defenders say it takes time for cost reductions to open the way for sales growth. But he isn't waiting around. Lemann faces "enormous pressure" to make room for the talent he's cultivating, Garantia co-founder Fernandes says. Investors—Buffett among them—are betting he's far from done buying businesses. In June, a Brazilian magazine reported Lemann was interested in London-based liquor giant Diageo. Its American depositary receipts surged 8 percent on the speculation. SABMiller's shares shot up as much as 24 percent on Sept. 16 amid news of AB InBev's interest.

As for Coca-Cola, Buffett rules out a 3G-led takeover. "That would be very unlikely," he says. "I don't think Coke is looking for a deal." Berkshire is the soft-drink maker's largest shareholder, so it would be hard to imagine a buyout without Buffett's blessing.

Still, you can be sure that whenever Jorge Paulo calls, his buddy Warren Buffett will pick up the phone. "I love the idea of partners who are going to do big things," Buffett says. "To find opportunities with people that more than deliver and are more than fair, that's a real rarity." BM

5 Warren Buffett

The Oracle of Omaha on Running a Lean Machine

THE CEO OF BERKSHIRE HATHAWAY employs more than 300,000 people spread across more than 70 subsidiaries, including energy utilities, insurers, manufacturers, retailers, and a railroad.

"Most of our managers run very lean operations," says Buffett, 85, who's in his 50th year controlling Berkshire. "But it isn't like they're standing there with whips or anything like that. It's just that they don't have more people than they need."

The same goes for Berkshire's headquarters in Omaha, Nebraska, where you'll find about only two dozen employees. "If you've got too many people," says Buffett, "either you correct it or someone down the line will."

NOAH BUHAYAR

BLOOMBERG TIPS

Tracking Lemann's Deals

You can use the Bloomberg Professional service's suite of private equity functions to dig into deals orchestrated by Jorge Paulo Lemann. First, type **PE <Go>** for the Private Equity Overview function. Enter *3G* in the field and click on the first General Partners match for a description of the firm. Click on the Portfolio tab. For details of the acquisition of Heinz by 3G Capital and Berkshire Hathaway, click on Kraft Heinz Foods under Portfolio Company in the lower section of the screen. Then type 11 <Go> to display the M&A Transaction Details page. To view multiples for similar companies, click on Deal Comps. JON ASMUNDSSON

18 Ray Dalio

Founder, Bridgewater Associates

$169 BILLION

The amount that Dalio's Westport, Connecticut–based firm manages—about half of which is in the world's biggest hedge fund

19 Elizabeth Warren

U.S. Senator

Bully pulpit + bulldog tactics + former Harvard Law professor + Jamie Dimon antagonist + Consumer Financial Protection Bureau creator = **Go-to senator on financial regulation**

20 Thomas Piketty

Professor, Paris School of Economics

"When I hear the Germans say that they maintain a very moral stance about debt and strongly believe that debts must be repaid, then I think: What a huge joke! Germany is the country that has never repaid its debts."
—The French economist and income-inequality pundit, in a July interview with Germany's Die Zeit

21 Jeffrey Gundlach

Founder, DoubleLine Capital

With ex-Pimco supremo Bill Gross handling just $1.47 billion at Janus, Gundlach—whose firm manages $76 billion—gets to wear the bond king crown, especially after outperforming his rivals during August's market turmoil.

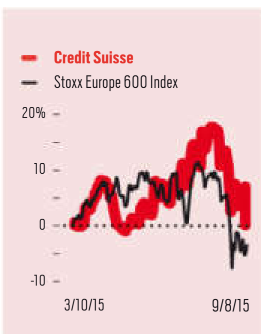
22 Fan Bao

Founder, China Renaissance

The fast-talking Bao has the *guanxi* to arrange practically anything in China's vibrant tech scene. For the $6 billion merger of taxi app giants Didi Dache and Kuaidi Dache—China's biggest Internet M&A deal of 2015—the two companies even agreed to let Bao be the sole arranger, enabling him to take fees from both sides.

23 Tidjane Thiam

CEO, CREDIT SUISSE GROUP



Thiam's success as CEO of Prudential earned him the top job at Zurich-based Credit Suisse, and he's promised to be "ruthlessly selective" as he prioritizes wealth management over investment banking. Shares have outperformed most of its competitors' since the bank announced his arrival in March, though they still lag behind crosstown rival UBS's.

TOP: LEFT TO RIGHT: JASON ALDEN/BLOOMBERG; ROB KIM/GETTY IMAGES; VINCENT CAPMAN/RIVA PRESS/REDUX; SCOTT EELLS/BLOOMBERG; ADAM DEAN/THE NEW YORK TIMES; CHRIS RATCLIFFE/BLOOMBERG (THIAM)

24

The Search Giant Has Found Its Disciplinarian

Ruth Porat

CFO, GOOGLE

About 30 seconds into her first earnings call as Google's new chief financial officer in July, Ruth Porat proved why she'd landed the job. After unveiling second-quarter results that topped analysts' estimates, Porat, 57, quickly pointed to "ongoing operating expense discipline" that helped operating income jump 13 percent. All told, she used the word *discipline* six times on the call. The stock soared, adding more than $60 billion in market capitalization the next day.

Porat joined Google in May after more than 25 years on Wall Street, the past five of which she spent as CFO of Morgan Stanley, where she helped stabilize the investment bank after its near collapse in 2008. Porat is likely to help temper Google's highflying, far-reaching ambitions with some old-fashioned budgeting. During the second quarter, operating expenses rose at the slowest pace since 2013. "To be clear, the priority is revenue growth," she said during the analyst call. "But pursuing revenue growth is obviously not inconsistent with expense management."

Less than a month after the quarterly report, Google announced a corporate shake-up that renamed the company Alphabet and separated future-oriented projects, such as driverless cars, from the mainstream search business. While Porat must now grapple with the new corporate structure—she will be CFO of the overall Alphabet company and the core Google company—the arrangement should give investors a better idea of the performance of the emerging businesses, reflecting a promise Porat made in July to be "direct" with analysts.

"Thus far, Wall Street has a lot of respect for her," says Victor Anthony, an analyst at Axiom Capital Management. "I think there's more to come in terms of revenue growth, the expense growth deceleration, and the new clarity."

BRIAN WOMACK

ILLUSTRATION BY **AUTUMN WHITEHURST**

PHOTO REFERENCE: CHIP SOMODEVILLA/GETTY IMAGES

25 Elon Musk

Founder, Tesla Motors

From building electric cars (Tesla) to exploring the final frontier (SpaceX), Musk might as well wear a superhero costume. "I'm trying to do useful things," he said recently on *The Late Show with Stephen Colbert*. He may also harbor supervillain tendencies, as Colbert joked when Musk said Mars could be made more habitable by firing off thermonuclear weapons over the planet's poles.

26 Paul Singer

Founder, Elliott Management

Best known for poking Argentina in the eye over defaulted debt, Singer stirred controversy in another corner of the globe in recent months. He took on the *chaebol* that controls Samsung Group and tried to block a planned merger of two of its affiliates, arguing it cheated outside shareholders. He failed to stop the transaction but rallied plenty of investors to his side. Korea Inc. is on notice.

27 Marc Andreessen

See page 62.

29 Akio Toyoda

President, Toyota Motor

Since taking over as president in 2009, the grandson of Toyota's founder has steered the company through a recall crisis and back to winning over consumers. The world's most valuable automaker (market cap: $200 billion) has begun offering its first fuel cell vehicle, the Mirai, and will build new plants in Mexico and China before the end of the decade.

30 Paul Krugman

Professor, City University of New York Graduate Center

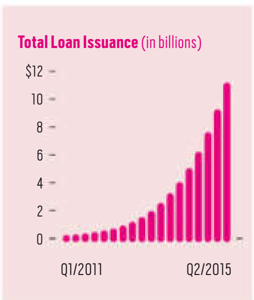
The Nobel laureate hoists the liberal economist flag on a lot of hot topics, as recent headlines from his *New York Times* blog make clear:

1. **The China Debt Zombie**
2. **Jeb The Unready**
3. **Rate Hike Fever**
4. **Zombies Against Medicare**
5. **Eternal Greece**
6. **Angry Germans**

28 Renaud Laplanche

FOUNDER, LENDINGCLUB

Growth at LendingClub looks like a hockey stick. The peer-to-peer company arranged almost as many loans in the second quarter of 2015 as it did in all of 2013. Laplanche has some compelling allies, including Jack Ma, John Mack, Mary Meeker, Hans Morris, and Larry Summers.



ADAM JEFFERY/CNBC/NBCU PHOTO BANK VIA GETTY IMAGES (LAPLANCHE). BOTTOM, FROM LEFT: KEVORK DJANSEZIAN/GETTY IMAGES; CHRIS RATCLIFFE/ BLOOMBERG; MICHAEL KOVAC/GETTY IMAGES FOR VANITY FAIR; KIYOSHI OTA/BLOOMBERG; NICHOLAS KAMM/AFP/GETTY IMAGES

Pope Francis

31

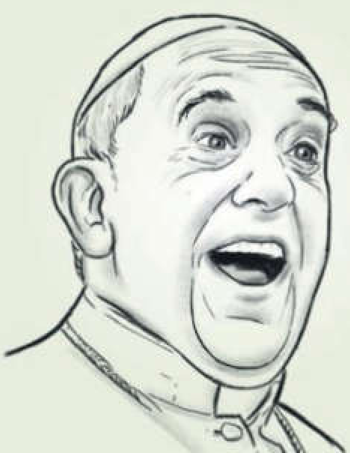
The Vatican's Green Radical

ROMAN CATHOLIC CHURCH

Diplomatic soft power is the pope's specialty.

Any pope's. A bishop of Rome commands his own 2,000-year-old social media infrastructure. His word rolls out to 5,100 or so bishops, 415,000 priests, and, from there, the estimated 1.2 billion Roman Catholics. That's 17 percent of the human population, scattered among 220,000 parishes. Such a following generates considerable sway that resonates far beyond the faithful.

Francis hopes to harness that sway to marshal people to his causes. By naming himself after nature-loving champion of the poor Saint Francis of Assisi, Argentine Cardinal Jorge Mario Bergoglio tacitly promised to light up the Vatican's vast global network with ambition and urgency, particularly when it comes to the environment, poverty, and the intersection of the two. Take Pope Francis's 184-page encyclical letter "Laudato Si'," or "Praised Be to You," which he dispatched to his bishops in June. "The violence present in our hearts, wounded by sin, is also reflected in the symptoms of sickness evident in the soil, in the water, in the air, and in all forms of life," Francis wrote.



To Francis, climate change is a market failure, one stemming from the fact that the waste from fossil fuel combustion, carbon dioxide, imposes costs on society, such as heat, droughts, floods, and more-powerful storms, that aren't reflected in prices over time. "What the pope is saying is the market economy needs to operate within a moral framework," says Jeffrey Sachs, director of Columbia University's Earth Institute. Francis is attempting to do what no environmentalist, politician, corporate sustainability officer, or, for that matter, pope has previously been able to achieve. That is, to make climate change personal, spiritual, and moral.

The views in Francis's encyclical aren't universally popular, nor have they yet had a measurable impact. A national poll conducted a month after the encyclical's release found that fewer than a third of Americans knew about Francis's climate push; just 40 percent of Catholics did, according to research by the Associated Press, the University of Chicago, and Yale. But Francis may be speaking up at the right moment, as more people acknowledge that climate change is caused by humans. Nearly half of Americans attribute the warming to human activity, and 74 percent say carbon dioxide should be regulated as a pollutant. While the public's views may be evolving, the question is how much dominion Pope Francis's moral argument will have on the world's still-slow-moving leaders.

ERIC ROSTON

ILLUSTRATION BY **JOEL KIMMEL**

32

Ellen Kullman

CEO, DUPONT

She Went on the Attack Against an Activist—and Won

Most corporate chieftains bend—and try to cut a deal—when activist shareholders attack. Not DuPont's Ellen Kullman. The 59-year-old mechanical engineer is the rare CEO to successfully fend off a proxy challenge. And she's the only one to stymie Nelson Peltz's Trian Fund Management, leaving him empty-handed for the first time since he co-founded the firm a decade ago.

Kullman won over DuPont investors with activism of her own. To defeat Peltz's bid for four seats on the 12-member board in May, she traveled nationwide to lobby the chemical maker's 50 largest institutional shareholders. Her pitch: A well-funded and integrated research and development program was key to success. It didn't hurt that the stock had almost tripled since Kullman took over as CEO on Jan. 1, 2009.

Peltz, in contrast, sought $4 billion in cuts and wanted to split the company in two. "DuPont's conglomerate structure is destroying value," he wrote in a Sept. 16, 2014, letter to the board. He declined to comment for this story.

Some big shareholders, including the California Public Employees' Retirement System, sided with Kullman in the May 13 vote. "We don't want barbarians at the gate; we want owners at the gate," says Anne Simpson, director of corporate governance for Calpers.

Other CEOs have accommodated activists. In January, PepsiCo CEO Indra Nooyi handed a Peltz adviser a seat on her company's board after fighting Trian's efforts to split the snacks and beverages unit. Dow Chemical gave two directorships to Daniel Loeb's Third Point in November 2014.

Kullman's approach may persuade companies to stand firm, says Jeffrey Sonnenfeld, a senior associate dean at the Yale School of Management. "Boards can now be more steadfast, and they won't be so weak-kneed and capitulate," he says.

Kullman says communicating her long-term vision made the difference. "That's the part we had not done as well in the past," she says.

The 27-year DuPont veteran also played to the hometown crowd. A native of Wilmington, Delaware, where the company is based, Kullman took out ads and urged local shareholders who hold much of Dupont's stock to stop Trian's "value-destructive agenda."

Kullman scaled back after defeating Peltz. She spun off the performance chemicals business, renamed Chemours, and is cutting $1.3 billion in costs and buying back shares. Revenue is about 10 percent lower than when Kullman took over, and earnings in the recent quarter failed to meet her promises. She says DuPont is more focused.

Some see Peltz's influence in the moves. "We are encouraged by the changes Trian Partners have driven," says Anne Sheehan, director of corporate governance at the California State Teachers' Retirement System.

The war may not be over. Peltz, the fifth-biggest investor, with a 2.7 percent stake, has kept his 24.6 million shares. Those shares are down 32 percent since Trian lost its fight. "We're going to watch and wait," he said after the vote.

LAURA COLBY AND JACK KASKEY

ILLUSTRATION BY MAGNUS VOLL MATHIASSEN

Japan's Equity Sun Rises Again

A number of factors make Japan an attractive target for value investors from overseas

Just as Japan has spent the last year attracting record numbers of overseas tourists who are taking advantage of the cheap yen and the increased openness of pre-Olympics Japan—highlighted by the lowering of barriers to foreign labor in the run up to the 2020 games—equity investments from foreign investors are likewise increasing. Fixed-income investors, such as those purchasing the government-backed products offered by JBIC, also demonstrate a newfound confidence in the Japanese economy.

Often noted for their large cash reserves, Japanese companies are increasingly forging links with overseas companies, whether through M&A activities or joint ventures. For foreign partners now able to purchase large amounts of previously expensive yen, the chance to utilize Japanese companies' decades of R&D expertise is proving attractive, particularly in fields where overseas partners help to market innovative made-in-Japan products.

Blue-chip Japanese exporters have fared well in this climate, with increased energy costs mitigated by a somewhat weaker yen. Japanese SMEs, however, have yet to benefit fully from the inflationary tactics of Prime Minister Shinzo Abe's government.

The Nikkei 225 index is riding high. After opening 2013 at just below 10,700 yen, it reached an all-time high of 20,952 this summer—more than double its level compared to the state of the market following the March 2011 Tohoku earthquake and tsunami. That makes the Nikkei 225 one of the fastest growing stock market indexes in the world.

For Shuhei Abe, President and CEO of SPARX, a Tokyo-based investment manager, this is no bubble, but a sustainable sign of recovery. Abe foresees even higher values for the Nikkei 225 as 2020 approaches. In an effort to boost competition on the global investing scene, the Tokyo Stock Exchange is rebooting its IT systems to encompass developments in electronic trading and improve convenience, introducing functions that will bring the TSE in line with other major international exchanges.

New forms of equity investment are also proving to be attractive. One example is Toyota Motors' "lock-stock" investment product. Currently restricted to Japanese investors only, this vehicle guarantees a fixed dividend for five years, during which time the stock cannot be sold or transferred.

Finally, another factor drawing foreign money to Japan is the revision to corporate structures, with new codes of governance put in place to create greater transparency to shareholders. These factors seem to show that while it might be early to say that the Japanese train is completely out of the tunnel, the light at the end is growing brighter, inviting foreign investors to come and take the ride. ●

Time to confess:

"Japan is not a capitalist country"

Shuhei Abe speaking to investors in Yokohama

...but capitalism is coming, and that spells opportunity

WE JAPANESE have pretended to capitalism for decades, with all its trappings: stock markets, regulators, annual reports and the whole nine yards. But the essential element has been missing. In a truly capitalist economy, management works for shareholders.

In Japan's system, for too long shareholders have been last in a line of "stakeholders" – behind government, banks, employees and especially management. The result has been woefully unproductive use of capital.

Fortunately, true capitalism is now taking root, as Japan recovers from 25 years gripped by the chronic disease of deflation. Lower corporate taxes less actively discourage profit. Corporate governance reforms strengthen the hand of outside directors. The unwinding of cozy webs of cross-shareholding is stripping insulation from management. Above all, a new and growing consensus recognizes that the first responsibility of a public company is to generate return on equity for investors.

In this new climate it's dawning on management, grudgingly or not, that shareholders must be listened to.

But what coherent voice does capital have? Individuals lack capability and clout. Domestic institutions are mostly reticent. Foreign institutions face language and cultural barriers. So who's left?

Various foreign activist investors have taken runs at Japanese firms over the years, without much success – and no wonder. When American cowboys ride over the hill, guns blazing, Japanese instinctively circle the wagons.

This creates a gap in the market for an activist investor with impeccably Japanese credentials, the ability to work closely with global capital, and the insight required to spot unrealized value. It is an investor able to take a decisive stake before approaching management – in a constructive, culturally appropriate way – with expert guidance on how to enhance the productivity of capital. To achieve the kind of consensus essential to positive change in Japan, this guidance must be offered gently... while leaving absolutely no room to doubt the determination behind it.

This is the role we endeavor to play at SPARX – and we're confident that now is the critical moment for it. Change has been a long time coming, but a new age of true capitalism is emerging. Don't underestimate Japan.

Shuhei Abe
President & CEO, Group CIO

Two's a Charm: JBIC's Dual Tranche Strategy

A $2.5 billion bond allows the bank to maximize its investor base and lock in duration while balancing costs

On May 20, Japan Bank for International Cooperation (JBIC) launched its first $2.5 billion dual tranche note of the year. As an issuer who only comes to market several times a year, JBIC favors the dual tranche strategy. Taking advantage of both its high credit quality and the rarity of coming to market, JBIC also utilized the back up in yields to print the transaction, in contrast to most recent SSA issuance that has been focused at the short end. With the new issue, JBIC refreshed the five-year part of its curve and bucked the recent trend of defensive short-dated dollars with the 10-year portion.

"Their government guarantee only works for five years and longer," said the bookrunner. "The issuer also had some needs in 10 years and they were keen to target that sector. They wanted to take $2 billion or more out of the market, and the best way to do that is with a dual tranche."

The bond issued in May was a $2.5 billion dual note split into a $1 billion five-year tranche and a $1.5 billion 10-year tranche. The first tranche has a 1.75 percent coupon that matures May 28, 2020. The second tranche has a 2.5 percent coupon that matures May 28, 2025. Because the Japanese government fully guarantees JBIC, the bond's credit rating is on par with the sovereign, at A1/AA-. The joint bookrunners were Barclays, Citi, HSBC and JPMorgan Chase.

The dual tranche structure allows JBIC to achieve its objectives of maximizing the investor base and locking in duration while balancing costs. For Japanese investors seeking yield, the 10-year tranche generated more demand, but the five-year tranche garnered more widespread interest. The global distribution among sectors was an encouraging demonstration of the depth of the global bid for this type of issuer. "International investors want the extra yield despite the backup in Treasury yields," explained the lead banker. "That's why we saw more demand in the tens."

Japanese domestic end accounts were particularly receptive to the longer-dated piece, given the recent back up in rates. "There has been a volatility in 10-year U.S. Treasury, but the back up in yields would have really helped with domestic investors who normally don't get a chance to buy this sort of yield and spread on a highly rated name," said a banker not involved with the trade.

The five-year ultimately garnered 39 percent from Asia, 39 percent from EMEA and 22 percent from the Americas. The distribution among sectors was 40 percent from banks, 32 percent from asset managers, 19 percent from central banks and public institutions and 9 percent from other institutions. The 10-year garnered 51 percent from Asia, 36 percent from EMEA and 13 percent from the Americas. As for sectors, 26 percent was from

insurance and pension funds, 25 percent from central banks and public institutions, 22 percent from banks, 20 percent from asset managers and 7 percent from other institutions.

In the month leading up to the issue, 10-year U.S. Treasury yields spiked by around 40bps with the five/10-year curve steepening by about 10bps in the same period. Initial price thoughts were midswaps plus high teens on the five-year and midswaps plus high twenties on the 10-year, which was revised to guidance at +19bps over midswaps on the five-year (31.8bps over the April 2020 U.S. Treasury) and +28bps over midswaps on the 10-year (32.4bps over the May 2025 U.S. Treasury). With a final book order of $2.6 billion, there was sufficient demand to price both the five-year and the larger 10-year issue in line with guidance.

One market appraiser said, "It went quite well. I was impressed by the 10-year tranche. Getting $1.5 billion is enormous for JBIC." Another added, "They squeezed every last dollar, but they can clearly get volume done." As for secondary market performance, both tranches were still bid around reoffer the following morning.

The outcome was encouraging for JBIC, as it marked the largest deal from a Japanese SSA issuer since the borrower's own $2.5 billion dual tranche deal a year prior. In May 2014, JBIC raised a $2.5 billion dual tranche note to fulfill its annual international program amid a relatively low U.S. Treasury yield environment. Ultimately, JBIC received a total order book of $6.1 billion from around 180 accounts. Although the May 2014 transaction structured the five-year as the larger tranche at $1.5 billion, the 10-year tranche attracted slightly more investors, with a book of $3.1 billion versus the five-year book of $3 billion.

The recently issued 10-year tranche represents the second time the issuer has targeted this maturity in 2015. JBIC sold a $1 billion 2.125 percent 2025 issue at +31bps over midswaps at the beginning of the year. When the May issue was announced, the February deal was bid around +20bps over midswaps. A lead banker indicated, however, that the February deal was heavily bid by yield starved Japanese investors, and he looked instead to the May 2019 to indicate fair value of +16bps over midswaps on the five-year and the 3 percent May 2024 for fair value of +24/25bps over midswaps on the 10-year.

"There was a new issue premium of 2bps–3bps on each tranche," the bookrunner said. "There wasn't much price sensitivity, but the objective was to get size done. In the past, they've started with a large concession, then moved quite a way to the final level. As they've established a fuller and more liquid secondary curve, it removes the requirement to start so wide." — *Ilana Stone*

arrowhead points the way
to new market vitality

33

Wang Qishan

He shared a cave in exile with China's future president during the Cultural Revolution. Now Wang is Xi's corruption fighter, economic whisperer, and de facto deputy.

BY WILLIAM MELLOR

In 2009, when China's Yao Ming was a big name in U.S. basketball, **Wang** got a memento from President **Barack Obama** on a visit to Washington.

Once a refuge for Mao Zedong's Red Army, the caves overlooking remote Yan'an City lure tourists who are mostly interested in reliving China's revolutionary past. Search closer, though, and the pockmarked yellow hills hold clues to ties binding present-day China's two most powerful men as they battle forces shaking their country and the world.

Locked away in a village compound, accessible only by climbing over a pigsty wall, stands a monument to 20,000 young people from elite families who, in 1969, were sent to labor here on Mao's orders during the Great Proletarian Cultural Revolution. Like Mao a generation earlier, they lived in caves, sometimes huddling together for warmth.

Xi Jinping and Wang Qishan, who would have been students had schools not been shut down during that anarchic time, bonded in a cave a few meters from the monument; they even shared a quilt once. Today, they live and work among the pavilions and palaces of Zhongnanhai, the vermilion-walled leadership compound that abuts Beijing's Forbidden City. Xi, now 62, needs no introduction. Increasingly seen as the most powerful leader since Mao, he has held center stage as Communist Party general secretary since 2012 and as China's president since 2013. The less-well-known Wang, 67, is Xi's most trusted enforcer—a troubleshooter who's earned the nickname "Jiuhuo Duizhang," or "Captain of the Fire Brigade."

The versatile Wang—a historian-turned-banker with a taste for popular Western culture that runs to critiquing the various actors who've played Mr. Darcy in *Pride and Prejudice* adaptations—is now fighting wildfires on two fronts. For the past three years, he's been the high-profile spearhead of the biggest anti-corruption purge in the 66-year history of the People's Republic. And, as hard as it is to decipher China's secretive leadership machinations, it seems Wang is also increasingly a key behind-the-scenes player in Xi's efforts to stabilize the Chinese economy and end stock market upheavals that in August sparked global financial turmoil.

Normally, Wang's graft-busting day job would be responsibility enough. Declaring that venality now threatens the party's existence, Xi has staked his political legacy on conquering it. Such is the barely conceivable scale of corruption and theft of state assets that it could be costing as much as $500 billion a year, according to former U.S. Treasury Secretary and Goldman Sachs Chairman Henry Paulson in *Dealing With China*, his memoir published in April. Then there's corruption's human toll: In August, for example, at least 173 people died in explosions at a chemical warehouse in Tianjin; the official Xinhua news agency reported that one of the owners, a son of a former police chief, had used his connections to bypass safety regulations.

Wang has responded on a spectacular scale. Since assuming command of the Orwellian-sounding Central Commission for Discipline Inspection, Wang and his agents have swooped down on 100,000 party officials high and low—"tigers and flies," as Xi calls them. The tigers include more than 100 top-level government officials, senior executives of state-owned companies, and military brass. In June, Wang bagged his biggest prey when Zhou Yongkang, 72, former head of the country's vast security apparatus, was jailed for life after admitting he accepted bribes.

"Xi Jinping believes that curbing corruption is essential for the survival of the Communist Party, so it shouldn't be surprising to anyone that he has gone to Wang Qishan to drive this," Paulson, who has known Wang for 20 years, says in an interview. "Wang is a first-rate politician

Wang, left, and **Xi** confer at the Great Hall of the People in Beijing earlier this year.

PREVIOUS SPREAD: ZHANG YAN/XINHUA PRESS/CORBIS; THIS PAGE: CHINA DAILY/REUTERS/LANDOV

in addition to being a reformer, someone who understands how to make a system work to get things done." In his memoir, Paulson remembers talking to the "spotless" Wang about a spree of photos on social media that showed government officials wearing wristwatches worth many times their salaries. Wang showed Paulson his own watch—aging and nondescript. "He said he changed the battery every year, the band every two years, and he had replaced the crystal three times," Paulson wrote.

On the financial front, as China's economy falters and capital markets tremble, analysts such as Cheng Li, director of the John L. Thornton China Center at the Washington-based Brookings Institution, say Xi may also be tapping Wang's financial expertise. Officially, Wang ranks sixth in seniority in China's seven-member decision-making Politburo Standing Committee, well behind Premier Li Keqiang, the official No. 2. But in reality, Wang is second only to Xi, Cheng Li says. "People talk about a Xi-Li government, but it's really Xi-Wang," Li says. "That they are aligned is the most important factor in Chinese politics in recent years. Xi is the boss, but Wang is one of the very few in the leadership who really understand finance and the economy. Most of the people in the Finance Ministry and Central Bank are his protégés or his friends, so it is very natural that people will consult him."

As Li suggests, that makes Wang one of the world's most influential figures. Wang didn't respond to requests to be interviewed for this article, but an analysis of Wang's track record and interviews with his friends, including Paulson, suggest that Wang is a committed, iron-nerved market reformer. He seems unlikely to be panicked into urging more of the disastrous state intervention that exacerbated the summer stock market crash.

Former U.S. Treasury Secretary **Henry Paulson** and then-Vice Premier **Wang** pose together at the U.S.-China Strategic and Economic Dialogue in Beijing in December 2008.

KYODO VIA AP IMAGES

In the 1990s, as executive chairman of China's first investment bank, China International Capital Corp., Wang launched a wave of initial public offerings of state-owned companies. He surprised Western bankers with his bold decisions. Bypassing Morgan Stanley, then a major shareholder in CICC, he appointed Goldman Sachs to arrange the landmark share sale of China Telecom. Then, when the 1997 Asian currency crisis sent markets plunging, Wang ignored Goldman's advice to lower the offer price and successfully held out for the $4.22 billion he had been seeking.

In 2003, Wang also displayed a measure of transparency uncommon in high party circles when the government parachuted him into Beijing as acting mayor to successfully fight a SARS outbreak his predecessor had covered up. He stayed on to oversee preparations for a flawlessly executed 2008 Summer Olympics. For five years after that, Wang served as vice premier in charge of the economy and finance; in the darkest days of the global financial meltdown, he headed Beijing's delegation to the U.S.-China Strategic and Economic Dialogue. It makes sense that Xi would want Wang at his side now at "a time of near crisis," says Willy Lam, a senior fellow at the Washington-based Jamestown Foundation. "He's decisive and takes quick action."

That hasn't been a hallmark of China's leadership this year. During previous economic upheavals, including the one in 2008, Wall Street applauded Beijing for acting decisively. This year, though, China's leaders lost the confidence of international investors by appearing confused and unsure as stocks plunged the most since 1996. At the same time, government attempts to transform China's economy from one driven by state investment and exports to a consumption-based model have stumbled, with growth dipping from an average of 9.9 percent annually from 1978 to 2014 to an estimated 6.6 percent in July.

Ironically, Wang's anti-corruption campaign is, in the short term, a brake on growth. Government decision makers are so afraid of Wang that they're avoiding awarding tenders for fear of coming under suspicion. Median estimates of a September 2014 Bloomberg survey of economists indicated that Xi's crackdown would boost gross domestic product growth by as much as 0.5 percentage point—or about $70 billion—by 2020. But before that happens, the turmoil it's causing among spooked Chinese bureaucrats could have shaved as much as 1.5 percent, or $150 billion, off 2014 GDP growth alone, Bank of America Merrill Lynch estimated in September.

Chinese cadres and the country's new rich are also abandoning the

Xi, pointing, visits the cave dwelling in Yan'an where he spent part of the Cultural Revolution.

LAN HONGGUANG/XINHUA PRESS/CORBIS

economy-boosting conspicuous consumption they used to luxuriate in. On Aug. 31, the Chinese gambling enclave of Macau announced its GDP had contracted a massive 26.4 percent in the second quarter after Wang's crackdown scared off high rollers who fear they'll be accused of using the territory's casinos to launder ill-gotten gains. On the mainland, luxury goods retailers and liquor manufacturers are feeling the pinch. And at Beijing's Shunfeng Cantonese restaurant chain, where miniskirted waitresses once served government officials suckling pig at $130 a plate and sea cucumber at $70 a portion, business is far from brisk. "Business is so bad we have had to reduce prices by 30 percent," one waitress confides.

For all that, the head of a technology firm in Beijing says corruption continues. Her company still pays about 100,000 yuan ($15,700) a year to officials, she says, "to get things done. Officials are used to taking money from me, so changes cannot happen overnight."

According to Berlin-based Transparency International's Corruption Perceptions Index, the Xi-Wang anti-graft drive is viewed by many as a sham. "The recent prosecutions in China are largely seen as efforts to clamp down on political opponents of the regime as opposed to genuine anti-corruption commitments," the organization said last year after relegating China to 100th out of 175 places on the index, down from 80th in 2013. Brookings's Li says the campaign can go only so far. "It is genuine, it is effective, but it is also highly selective," he says.

That may be, but Wang apparently believes that failing to address official corruption could imperil the very leadership of which he's a part. Chinese state media have reported that after reading Alexis de Tocqueville's *The Old Regime and the Revolution*, Wang instructed his underlings to read it, too, in order to understand how Louis XVI, one of the last kings of France, lost legitimacy (and his head) by allowing rampant inequality.

Wang, a slightly built figure with a gaunt, expressive face and a sometimes unruly comb-over, has spoken to some of his foreign contacts about the trials of being fireman-in-chief. In April, when he met with a small group of academics, he graphically described the task as difficult but doable, like surgically removing your own appendix without anesthesia, according to a transcript of the meeting posted on the Internet by one of the attendees.

People who have met Wang portray him as an enigmatic figure: fearless, puritanically incorruptible, yet warm and humorous. "He likes people, but it is more than that: He wants to understand what makes them tick, the cultural differences," says Paulson, who's now chairman of the Paulson Institute at the University of Chicago. "He is one of the few senior officials that you could actually become friends with," says tycoon Ren Zhiqiang, a contemporary of Wang's at Beijing No. 35 junior high school. Ren, founder of Beijing-based Huayuan Property, doubles as a social-media commentator with 30 million followers, often using his microblog to criticize government policy, including the anti-corruption campaign. Ren says Wang harbors no grudges: "He still invites classmates like me to Zhongnanhai because he wants to know the real thinking of ordinary people."

Wang himself is far from ordinary. His wife, Yao Mingshan, is the daughter of former Vice Premier Yao Yilin. Their 1976 marriage gained him admission to the so-called princeling circle, the elite that comprises children of former leaders. Xi Jinping, son of former Vice Premier Xi Zhongxun, is also a princeling, further cementing the Xi-Wang bond.

Wang was born in 1948, the year before Mao's victory over the Nationalist government, whose leadership fled to Taiwan. He grew up in Beijing, where his father was a senior government engineer. At Beijing No. 35, Wang was already secretary of the Communist Party Youth League, says Ren. Then, in 1966, Mao unleashed the decade-long Cultural Revolution that purged intellectuals.

Wang's father was forced to clean toilets, according to Paulson. Three years later, Wang joined

'Xi is the boss, but Wang is one of the very few in the leadership who really understand finance,' says Brookings's Cheng Li.

the exodus to the countryside, where, along with his wife-to-be, he ended up at impoverished Kangping village outside Yan'an, in Shaanxi province, 1,000 kilometers (620 miles) west of Beijing. "The experience made me understand what the word *hungry* means," he was quoted as saying years later by state media.

Around the same time, Xi Jinping, then 16, was also dispatched to the countryside after his prominent father was jailed. Xi ended up at Liangjiahe, 50 kilometers from Kangping. Wang, who would have known of Xi's father, became a de facto elder brother to Xi and the pair would swap books at a time when reading material was rare, according to Ren. In 1971, Wang wangled a job as a museum guide. He gained a history degree from Northwest University in Xi'an and then, in 1979, returned to Beijing as a researcher at the Chinese Academy of Social Sciences. A meteoric rise followed. By 1994, Wang was governor of China Construction Bank, which the following year formed a joint venture with Morgan Stanley to create CICC. Wang became executive chairman.

As Paulson says in his book, Wang was never just a banker. He was committed to reforming China's money-losing state-owned enterprises and turning them into profitable, publicly listed companies. He invited Goldman to become CICC's main international partner in China Telecom's 1997 IPO.

Paulson speculates that Wang and Morgan Stanley fell out because they had approached the joint venture with different expectations. "Perhaps Morgan Stanley wanted to run a successful local operation pursuing domestic business that purely foreign banks couldn't touch," Paulson wrote in his memoir.

'Wang is a first-rate politician in addition to being a reformer, someone who understands how to make a system work,' says Henry Paulson.

"Wang Qishan had bigger game in mind: He wanted to modernize a country." John Mack, who in 1997 was Morgan Stanley's president before rising to become chairman and CEO, says the investment in CICC was a success and that Morgan Stanley won more than its share of deals in China; the most likely reason Wang chose Goldman for China Telecom was to spread the deals around. "No investment bank is allowed to dominate in China," says Mack, who remains an adviser to Morgan Stanley—and a friend of Wang. "We worked together to create CICC," says Mack.

Four months before the IPO, the Asian financial crisis struck. Hong Kong's market plunged 40 percent. When Goldman wanted to lower the offer price, Wang insisted on HK$11.80 a share. Wang turned out to be right, Paulson acknowledges. The following year, again working in tandem with Goldman, Wang successfully cleaned up what was then the country's largest bankruptcy by restructuring $6 billion owed to foreign creditors by state-owned Guangdong Enterprises Holdings.

But perhaps the most dramatic example of Wang's firefighting came when the SARS virus appeared and Beijing became mainland China's most affected city, with 191 fatalities. Instead of admitting the extent of the crisis, Beijing's then-mayor attempted to conceal it, grossly underreporting cases.

Inevitably, the true scale of the calamity emerged. The mayor was sacked, and Wang flew in from China's southernmost province, Hainan, where he had been party boss. "His straightforward, candid response saved the day," Paulson writes. "He shut schools, quarantined thousands of people, released accurate case numbers, and designated new SARS-only hospitals." One such facility was built in eight days. Two months later, the World Health Organization declared the epidemic in Beijing over.

Now, Wang faces the twin challenges of corruption and an unsteady economy. "He is bold, he is skillful, and he has a great sense of timing," Li says. "But no one knows whether that will be enough because the challenges are extraordinary."

What drives Wang, like Xi, is the preservation of the Communist Party above all else, which may explain why neither man has any interest in changing China's political system. According to the transcript of Wang's meeting with the academics in April, he dismissed the idea of creating a Western-style independent judiciary in China: "That is impossible. The judiciary has to be under the Communist Party."

For Wang and Xi to hold such views is understandable, given their background, Ren says. "They are from revolutionary families, and they hold a similar belief that they must not ruin the regime founded by their fathers," he says. A stern reminder of that belief confronts everyone entering the Zhongnanhai leadership compound through the main New China Gate. There, a giant slogan in red and white proclaims, "Long Live the Great Communist Party of China!" For now, the job of ensuring longevity is very much in the hands of the Captain of the Fire Brigade. BM

With assistance from **Ting Shi** and **Keith Zhai**.

BLOOMBERG TIPS

Tracking China

To display bio pages of Chinese leaders, type **PRCH CH <Equity> MGMT <Go>** on the Bloomberg Professional service and click on an official's name. For headlines of Bloomberg First Word stories on China, type **NI BFWCH <Go>**. To translate stories, click on the link in the upper-right corner of the screen. To subscribe to the Bloomberg Brief China newsletter, type **BRIEF <Go>**, scroll down to the China newsletter, and click on the box to the left of Subscribe. Type **BI CHINA <Go>** for the Bloomberg Intelligence dashboard on China. To view monthly estimates of China's GDP based on an econometric model, click on the Macro tab under Data Library. JON ASMUNDSSON

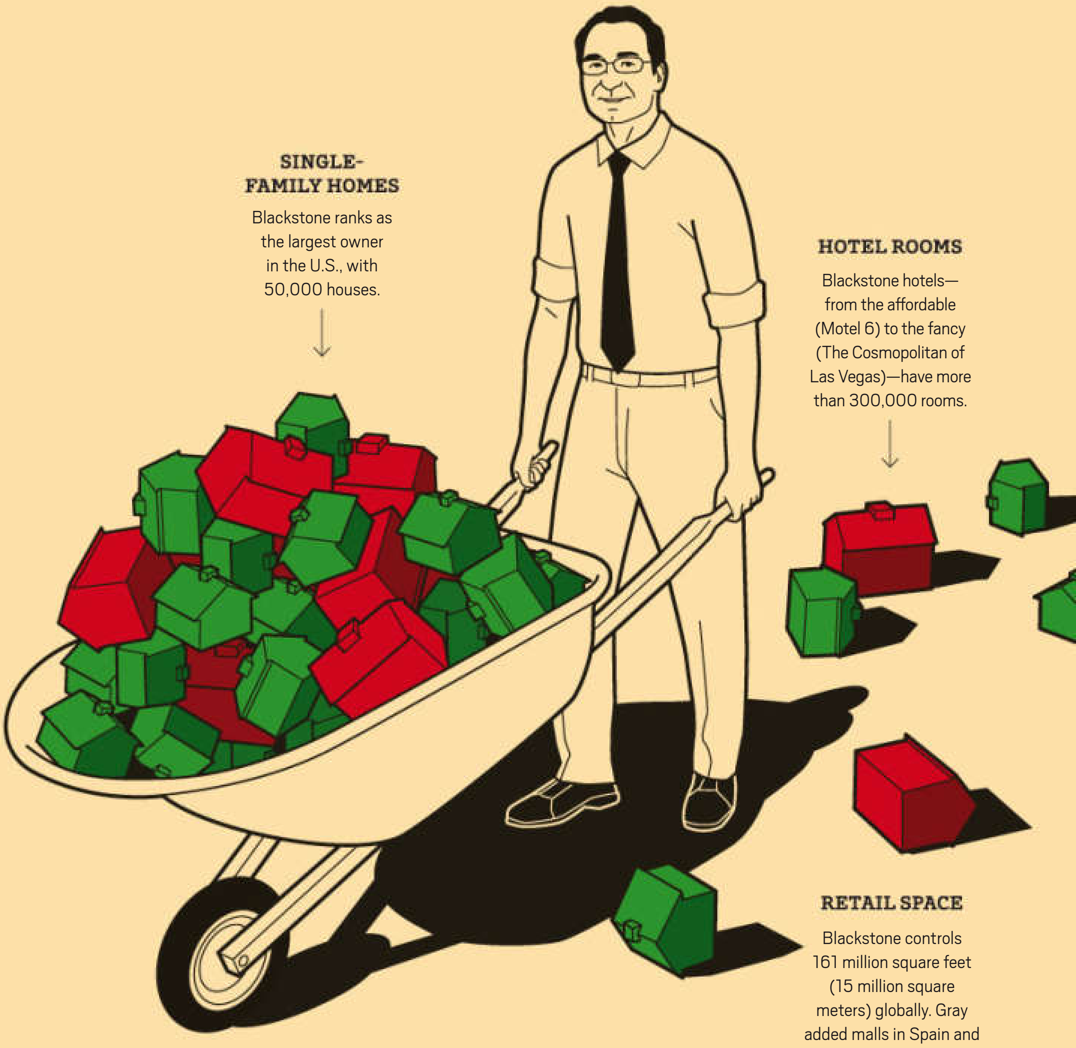
34 Jonathan Gray

GLOBAL HEAD OF REAL ESTATE, BLACKSTONE GROUP

‘I’d Like to Buy Some Houses and Hotels’

If you happen to find yourself in a hotel or office building in any major city, the roof overhead may very well belong to Blackstone, thanks to Jonathan Gray. The 45-year-old board member has helped the world’s largest alternative asset manager expand beyond private equity and hedge funds to become one of the biggest landlords around, with stakes in everything from Hilton Worldwide and Chicago’s Willis Tower to La Quinta. (He’s also made himself a potential heir to top dog Steve Schwarzman in the process.) Gray’s business, as these highlights attest, has been a major driver distancing Blackstone from its rivals.

JASON KELLY



WALDORF ASTORIA

Deal Value **$1.9 Billion**

In February, Blackstone sold the famed New York hotel to a Chinese insurance company for a record price.

WILLIS TOWER

Purchase Price **$1.3 Billion**

Blackstone bought the Chicago skyscraper (formerly the Sears Tower) in March.

HILTON WORLDWIDE

Stake Value **$11.5 Billion**

Blackstone remains its largest shareholder after buying it in 2007 and taking it public in 2013.

GENERAL ELECTRIC

Deal Value **$23 Billion**

In April, Blackstone acquired GE’s real estate business with Wells Fargo.

ILLUSTRATION BY **JASON LEE**

35 **Ken Griffin**

Founder, Citadel

Walloped by the financial crisis, Griffin put on 20 pounds. Now, at 46, he's lean again, managing $26 billion (a personal record), and has signed up former U.S. Federal Reserve Chairman Ben Bernanke as an adviser. Griffin is using his wealth to shape U.S. politics: He gives big, usually to Republicans. Earlier this year, he gave $200,400 to the National Republican Senatorial Committee and $100,000 to Right to Rise, the super political action committee supporting Jeb Bush's presidential campaign.

36 **John Stumpf**

CEO, Wells Fargo

With forecasters predicting one of the largest expansions in the history of the U.S. housing market over the next decade, Stumpf, 62, is sitting pretty at the top of the nation's largest mortgage lender. Last year, Wells Fargo surpassed Citigroup's 2001 record as the most valuable U.S. bank ever.

37 **Wang Jianlin**

Founder, Dalian Wanda Group

Already mainland China's richest man—and No. 15 in the world—with a fortune of $33 billion, the 61-year-old property and movie mogul has even grander visions: "I give myself six more years to make Wanda a world-class company in the league of Microsoft and Wal-Mart."

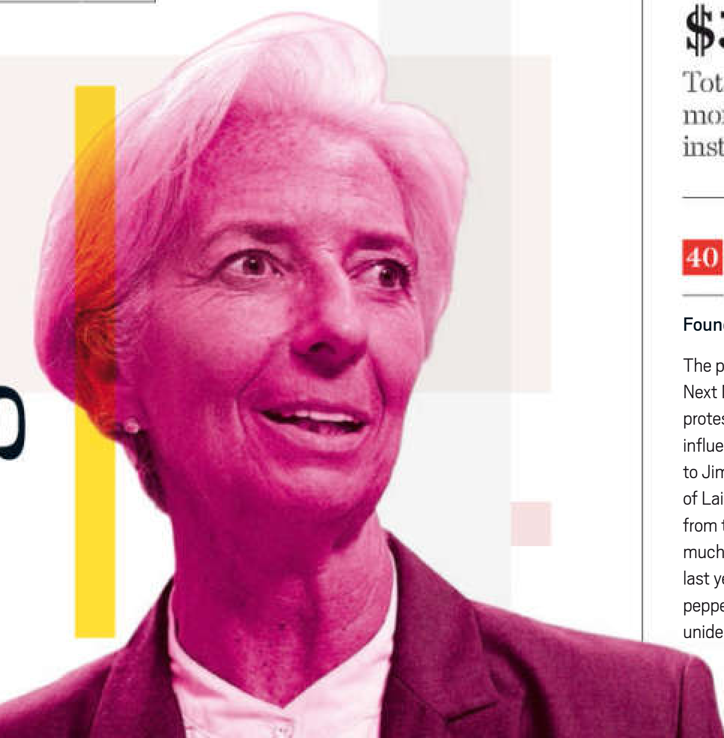
€313 Billion

The size of Greek government debt persuaded Lagarde to try to talk sense into Europeans assembling a third Greek rescue package. Her ultimatum: We won't throw money at the Greeks unless you're prepared to offer them some debt relief, too.

38

Christine Lagarde

MANAGING DIRECTOR, INTERNATIONAL MONETARY FUND



39 **Jiang Jianqing**

Chairman, Industrial & Commercial Bank of China

$3.6 Trillion

Total assets held by ICBC, more than any other financial institution in the world

40 **Jimmy Lai**

Founder, Next Media

The pro-democracy tycoon is the founder of Next Media, the loudest voice of anti-Beijing protest in Hong Kong. "When it comes to media influence, Rupert Murdoch is a toddler compared to Jimmy," says Robert Chow, a political foe of Lai. "While Murdoch tries to control things from the shadows, Jimmy is right out there." So much so that Lai was on the front line during last year's street protests, braving tear gas, pepper spray, and, once, pig entrails hurled by unidentified men.

TOP: FROM LEFT: HEIDI GUTMAN/CNBC/NBCU PHOTO BANK/GETTY IMAGES; ANDREW HARRER/BLOOMBERG; ADAM DEAN/THE NEW YORK TIMES/REDUX; JEROME FAVRE/BLOOMBERG; BRENT LEWIN/REDUX. THIERRY CHARLIER/AFP/GETTY IMAGES (LAGARDE)

41

Africa's Richest Man Looks Abroad

Aliko Dangote

He's feted like royalty. He has businesses ranging from cement to sugar to energy in a dozen sub-Saharan countries. He's a fixture at elite gatherings such as the World Economic Forum in Davos, Switzerland. No African has ridden the continent's halting march out of poverty toward potential prosperity as spectacularly as its richest person, the Nigerian industrialist Aliko Dangote.

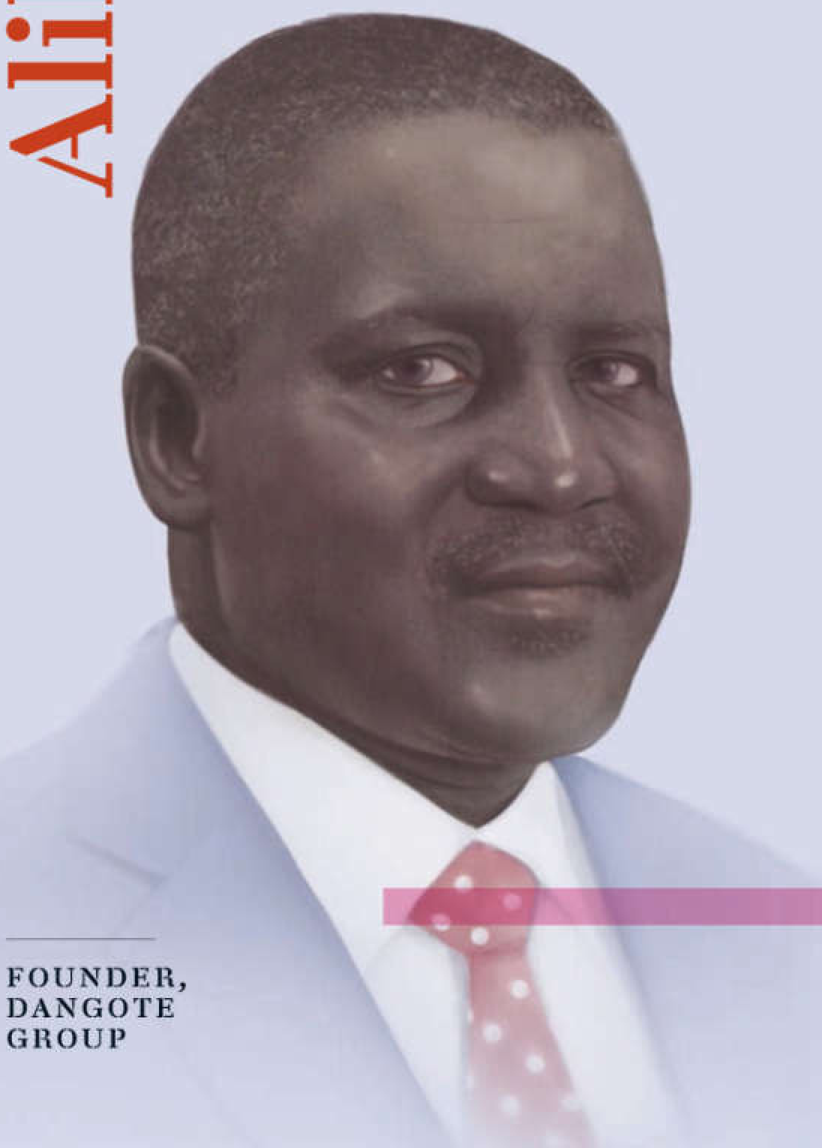
Dangote's clout extends beyond the boardroom and the high-flier dinner circuit. In March, as votes were tallied in Nigeria's presidential election, Dangote, 58, served as an intermediary between the camps of the incumbent, Goodluck Jonathan, and his ultimately victorious rival, Muhammadu Buhari. "There's no question that he is quite an exceptional person—not only in Africa but globally," says Mark Mobius, chairman of the emerging-markets group at Franklin Templeton Investments.

Today, Dangote is seeking to export his business empire and his influence beyond his terror-racked and corruption-riddled home country. Nigeria is responsible for about 85 percent of his fortune, which stood at $13.9 billion as of Sept. 9, according to the Bloomberg Billionaires Index. He's planning new cement factories across Africa and as far afield as Nepal and Brazil. He's considering taking Dangote Cement public on the London Stock Exchange and has even floated the idea of buying his beloved Arsenal, a top-ranking soccer club in the English Premier League. "I'm surprised I'm getting even four hours of sleep a day," Dangote says. "We're going ahead full steam."

The wealth Dangote has amassed is particularly conspicuous in a country as poor as Nigeria, which the International Monetary Fund ranked 122nd in the world in gross domestic product per capita last year. "You really see the inequalities," then-president Jonathan said in May last year at a World Economic Forum conclave in Abuja, the Nigerian capital. Citing Dangote by name, Jonathan said, "Income distribution is skewed toward a few people."

Dangote says his critics are being churlish. "Instead of studying how Dangote succeeded, they're busy complaining," he says. When he says that, he's speaking above the thrum of his private jet as it makes its way back home to Lagos from Addis Ababa after an hourlong meeting with Ethiopian Prime Minister Hailemariam Desalegn. But compared with the lifestyles of some tycoons, Dangote's is understated. Divorced from his wife, the mother of his three adult daughters, he lives on Lagos's Victoria Island. It's one of Africa's most expensive neighborhoods, but the home is far from lavish. Adjacent to a Mitsubishi dealership, the house is sparsely decorated, with a modest half-moon-shaped swimming pool set in a small garden.

Dangote grew up in the city of Kano on the edge of the Sahara, raised by his maternal grandfather, a wealthy rice and commodities trader. In his early 20s, he left for Lagos in search of fat profits buying and selling sugar, textiles, and cement in the fast-growing city. Soon, he was earning enough "to buy a Mercedes 200 every day," he says. These days, he's fallen on what are for him hard times. His net worth has tumbled by some $10 billion in the past two years because of the crash in the price of crude and unrest in Nigeria. Even so, he remains characteristically upbeat. His setback? "An accident," he says. "I'm very confident that in the next two years, you won't even remember it." PAUL WALLACE



FOUNDER, DANGOTE GROUP

ILLUSTRATION BY **HSIAO-RON CHENG**

PHOTO REFERENCE: BENEDICTE KURZEN/NOOR

42 Michael Kim

Founder, MBK Partners

Big-name private equity firms have recently turned their gaze to South Korea—but they'll struggle to overcome the head start of Kim, who has both a strong track record and unmatched connections on his home turf.

43 John Taylor

See page 44.

44

Blythe Masters

CEO, DIGITAL ASSET HOLDINGS

When Masters says the blockchain—the code behind bitcoin—has the potential to transform financial transactions, people listen. A former managing director at JPMorgan Chase, Masters has assumed a leading role in what might be the biggest fintech play of them all.

47 Elizabeth Holmes

Founder, Theranos

Here's the other way to operate a unicorn—you know, a tech startup with a valuation of more than $1 billion: Do groundbreaking work, collect additional expertise and funding as needed, stay out of the spotlight. Theranos's inexpensive finger-prick blood-testing technology is a serious challenge to traditional providers of lab services, which is why this low-visibility company is valued at $10 billion.

49 Jane Gladstone

Senior Managing Director, Evercore Partners

In the world of exchanges and, increasingly, fintech, you want a seat at the table—specifically, the table at Gladstone's annual dinner in Boca Raton, Florida, held during the yearly meeting of the Futures Industry Association. "People were practically climbing down the chimney to get to that dinner," Roger Altman, founder and chairman of Evercore, said about the 2013 affair.

50 Ruchir Sharma

See page 100.

45 George Osborne

U.K. Chancellor of the Exchequer

When Osborne was named chancellor of the Exchequer in 2010 at the age of 38, Britain's pundits ridiculed him as a smug, noble-born pol. Now, Osborne is a leading contender to succeed David Cameron as the Conservative Party's leader and its candidate for prime minister in 2020, thanks to his handling of the U.K. economy. It's expanded for 10 straight quarters, with unemployment falling to a seven-year low of 5.5 percent in July.

46 Richard Thaler

Professor, University of Chicago Booth School of Business

In his new book, *Misbehaving*, a folksy explanation of his brand of behavioral economics, Thaler says he's fascinated by "the myriad ways in which people depart from the fictional creatures that populate economic models." As head of the American Economic Association, he dispenses his jabs from a lofty pulpit.

48

The Ibrahim Index of African Governance is an unequaled tool for assessing the investing environment on the second-most-populous continent. Just as important, from Ibrahim's point of view, the index requires those who use it to see the particular and distinct qualities of the 52 nations it evaluates. "What people need to do," Ibrahim says, "is spend a little time looking at the granularity of what's happening in Africa."

Mo Ibrahim

CHAIRMAN, MO IBRAHIM FOUNDATION

MASTERS: JONATHAN FICKIES/BLOOMBERG; ROW FROM LEFT: COURTESY OF MBK PARTNERS; TOM WILLIAMS/CQ ROLL CALL/GETTY IMAGES; ERIC PIERMONT/AFP/GETTY IMAGES; CARSTEN REHDER/PICTURE-ALLIANCE/DPA/AP IMAGES; TAYLOR HILL/GETTY IMAGES; PATRICKMcMULLAN.COM VIA AP IMAGES; KAI NEDDEN/LAIF/ REDUX PICTURES; IMBRAHIM: DREW ANGERER/BLOOMBERG

50

He Sees Signs China Is 'Out of Control'

Ruchir Sharma

HEAD OF EMERGING MARKETS AND GLOBAL MACRO, MORGAN STANLEY INVESTMENT MANAGEMENT

It was 1991, the year India began opening its economy to outside investment. Ruchir Sharma had lived in Singapore, where his father held a diplomatic post and he went to school. His experience there, as the city-state was being transformed by extraordinary growth, sparked a passion for global economics and investing. Now, while waiting to enroll at Sri Ram College of Commerce in Delhi, Sharma wrote about what was on his mind and sent a piece to one of India's business dailies, *The Observer*, which published it. The editors at the *Economic Times*, the country's largest business paper, liked what they saw and asked him to contribute regularly. At 18 years old, Sharma was off and running on a career as a chronicler of—and investor in—emerging markets.

"The honest truth is that I did not reveal to the editors what my age was," Sharma says, laughing. His newspaper columns got him noticed by Morgan Stanley, which hired him as a junior portfolio manager in Mumbai in 1996. Today, Sharma, 41, lives in New York and oversees $25 billion as head of emerging-markets equities for the firm's money management arm. And he still writes frequently for global publications. In 2012, his *Breakout Nations: In Pursuit of the Next Economic Miracles* became an international best-seller.

Count Sharma among those who worry that China's leaders have lost their grip on the $10 trillion economy. Their failure to keep an exuberant stock market from unraveling is worrisome, he says. "For the first time, you've got this sign that something is out of control." China, he says, could push the world economy into its next recession.

For Sharma, a former competitive sprinter who still works out six days a week, one lesson learned over the years spent tracking emerging markets is that success is never permanent. Nations, he says, need to keep reinventing themselves. YOOLIM LEE

ILLUSTRATION BY **JAMES O'BRIEN**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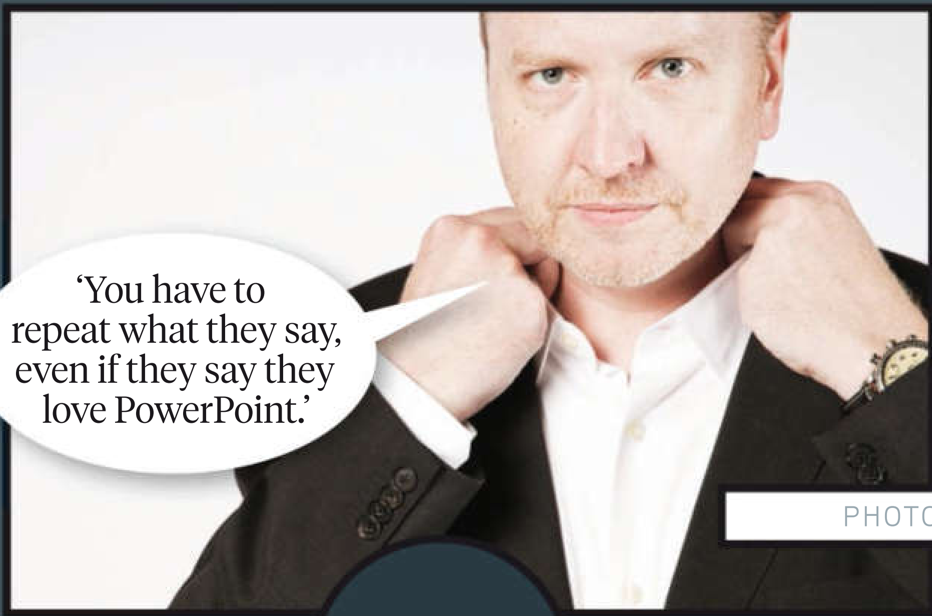
'Before I did improv training,
I put 174 people into comas with PowerPoint.'
'Before I did improv training, I put 174 people into comas with PowerPoint,
and that was the whole foreign-exchange department.'
'The whole foreign-exchange department loved this exercise.'
'The whole foreign-exchange department loved this exercise,
which makes you listen to your colleagues because you have to repeat what they say.'



Trainers and executives from **Second City Works** do an improv exercise called repetition. At the upper left is managing partner **Steve Johnston**.

PHOTOGRAPHS BY **BRIAN SORG**

BY **ANTHONY EFFINGER**

THE REVOLUTION WILL BE IMPROVISED

CALL IT MANAGEMENT BY THROWING AWAY THE SCRIPT.

ALI KHAN IS A CORPORATE NINJA. He has a black belt in Lean Six Sigma, an amalgam of two hypermethodical management systems developed by Toyota (Lean) and Motorola (Six Sigma).

Khan is all in: To get his belt, he had to pass 13 exams proving he could read a Pareto chart and use Kanban analysis. As a Lean Six Sigma process director at Sun Life Financial in Toronto, he teaches the stuff. But he recently had his mind blown by another, more unusual corporate tool: improvisational theater.

In April, a team of actors from The Second City, the Chicago theater company that launched Steve Carell, Amy Poehler, John Belushi, and Gilda Radner, came to Sun Life to help lead three days of training. At one point, an actor mimicked putting something imaginary at Khan's feet and said: "Here is a box. What's in it?"

"There's a flower inside," Khan said.

"What do you want to do with it?"

"I want to give it to you."

Khan, 43, describes the simple exchange in tones of the sublime, as though it changed his life. And in fact, it did, he says. In another exercise, everyone clapped whenever a Sun Lifer said something. "You know it's not real, but it feels awesome," Khan says. And it led him to this: "Instead of judging your co-worker, you collaborate. You build on each other's capabilities."

Few hard-charging business leaders have put imaginary boxes at their employees' feet (or paid anyone else to), but they should, says Steve Johnston, managing partner at Second City Works, the theater's corporate-training subsidiary. Clients, including Google, Farmers Insurance, and Dow Chemical, are using improv techniques to foster communication, collaboration, and creativity. These are not necessarily skills MBAs are learning in business schools. "They come out really strong on the quant skills," Johnston says, "but not so much on the soft ones."

So what is improv, exactly? Say the word to later baby boomers and Gen Xers and you conjure memories of comedians on TV's *An Evening at the Improv*. Almost none of that was improv, though. It was performers doing jokes they had rehearsed for months. True improv was born during the Depression in the slums of Chicago, where a woman named Viola Spolin used what she called theater games to help immigrant children assimilate.

Her son Paul Sills and two friends appropriated the games and turned them into a comic art at The Second City, a theater they opened in an old Chinese laundry in 1959, aiming their split-second satire at Eisenhower, suburbia, and fallout shelters, according to *The Second City Unscripted: Revolution and Revelation at the World-Famous Comedy Theater,* by Mike Thomas. A year after the founding of the theater, The Second City started a workshop for training its actors. In 1985, it started training anyone willing to pay tuition.

One of the first people to use improv to loosen up corporations was Gary Hirsch, a Portland, Oregon, artist who plies his craft on local stages. In 1996, he was selling T-shirts inked with his work and caught the eye of a British advertising executive named Robert Poynton, who called Hirsch for a meeting the next day and asked him what else he did.

It's not hard to see how Poynton would be taken with Hirsch. Built like a bald fireplug with a well-used gym membership, the 50-year-old has enough energy to power a Tesla Model S. He paints, he illustrates, and, as he told Poynton that day, he does improv.

"Can you do it with 90 people at a large ad agency in two months?" Poynton asked. Sure, Hirsch said, and he did. Shortly after, the pair started On Your Feet, an improv-based corporate-training firm.

From there, Hirsch and a group of improv believers under his direction took the show to other companies: Intel, Nike, Disney, Daimler. They've even done sessions at General Electric's vaunted Crotonville, New York, center, the Shaolin Temple of corporate training.

Lori Heino-Royer, director of business innovation at Daimler's truck unit in Portland, brings in OYF six times a year to work with executives, leading them through games like Swedish Story, in which they're told to spin a yarn on the fly with words that people shout from the audience. It forces people to think quickly.

Woody Allen once said that 80 percent of success is showing up. Hirsch says improv works because you have to really show up—and pay attention. "Being relentlessly present is a survival mechanism for life, but people don't remember it," Hirsch says. "They don't think about it, and they spend a lot of time preparing for things that don't happen and being freaked out by things that do."

Improv's promise is that being present will mean noticing more and listening better, which in turn will lead to richer communication and,

ONE ACTOR SAYS,
'AN ALLIGATOR CAME OUT OF THE SWAMP.'
THE NEXT ONE SAYS,
'YES, AND THE SADDLE IN MY GARAGE HAPPENED TO FIT HIM.'
SAYING 'NO' OR 'BUT' IS OUT OF THE QUESTION IN IMPROV.

ultimately, better collaboration and more creativity. That's the trifecta.

On Your Feet has a game called Three Favorites, in which participants list three things they like a lot and then combine two of them to form new business ideas. Mashing up Bollywood music and grocery stores led one group of clients to imagine a sound system on which mariachi bands play in the Mexican food section and cows moo in the dairy case.

There's also Phone a Friend, in which a group brainstorms about a topic, like compensation. Then everyone in the group gets 15 minutes to reach a friend who works in a different industry and ask how he or she handles it. In one session, on staffing, a participant called a friend at the National Basketball Association, who told him about the 10-day contracts teams use to try out players. The person went back to the group and proposed that companies could use them, too.

The Second City got into the market in 2002. In the decades since its founding, it had built a nice little business doing entertainment for corporate parties. Then the Sept. 11 attacks happened, and that market dried up. The Second City found itself competing with Neil Diamond impersonators for scarcer dollars. So it, well, improvised.

Andrew Alexander and Len Stuart, the Canadian co-owners of the company, started a division to use improv to craft advertising campaigns. They hired an ad man named Tom Yorton to run it. Yorton, too, pivoted, pushing the company into something else entirely: corporate training. The division became Second City Works. It now has 35 full-time employees and taps a further 150 improv teachers, writers, actors, and directors. Second City Works also makes corporate-training films, called RealBiz Shorts.

"This all comes from our core—using the tenets of improvisation," Alexander says. Altogether, The Second City has annual revenue of $50 million and is growing quickly.

Improv is one of hundreds of methods used to train people these days. Leaders and their workers are coached, lectured, numbed with PowerPoint presentations, and taken into the wilderness. Richard Olivier, son of Laurence, uses Shakespeare plays to teach leadership through a system he calls Mythodrama.

They are all essentially trying to get people to the same place. But Daniel Pink, author of a series of management books, including the best-seller *To Sell Is Human*, says improv is uniquely suited to our times. National Cash Register succeeded in the late 1800s because founder John H. Patterson required salesmen to memorize scripts that had proven results. These days, Pink says, anything that can be scripted can be automated. All that matters now is the unscripted stuff—unexpected questions, personal connections. "There's only one technique out there for what to do when you don't have a script: improv," he says.

The improv folks keep things simple. Simple games, simple equipment, simple concepts. They don't talk about even one sigma, much less six. Second City distills the whole practice down to "Yes, and ...." In improv, that's how scenes build. One actor says, "An alligator came out of the swamp." The next one says, "Yes, and the saddle in my garage just happened to fit him." Saying "no" or "but" is out of the question in improv.

"'Yes, but' is just 'no' in a tuxedo," says Alan Bernick, chief legal counsel at the window maker Andersen. He brought Second City in to help communicate the company's code of conduct to its top 100 leaders in a memorable way.

For Hirsch, improv comes down to "everything is an offer." In his book *Do Improvise*, Poynton (who now grows olives and teaches in Spain) writes: "To see everything as an offer means to regard everything that occurs as something you can use. To do that, you need to really notice what's there, not just cruise through life thinking about lunch."

All of improv is aimed at getting more ideas out of people's minds and into the room. When it works, it's brilliant. There's a story that improvisers love to tell. While shooting *Raiders of the Lost Ark* in Tunisia, Harrison Ford got dysentery. On the day he was supposed to fight a scimitar-wielding assassin, he could barely stay out of the bathroom. So Ford improvised. After his opponent twirls and tosses his blades, Ford, looking spent, just shoots him. It's one of the most memorable scenes in the movie.

Hirsch and Johnston say such genius is bottled up in every worker, and you don't need Pareto charts or Kanban analysis or any other Lean Six Sigma method to tap it. Ali Khan agrees—and he knows what those things are. He can also see flowers in imaginary boxes, which may be a more valuable skill. BM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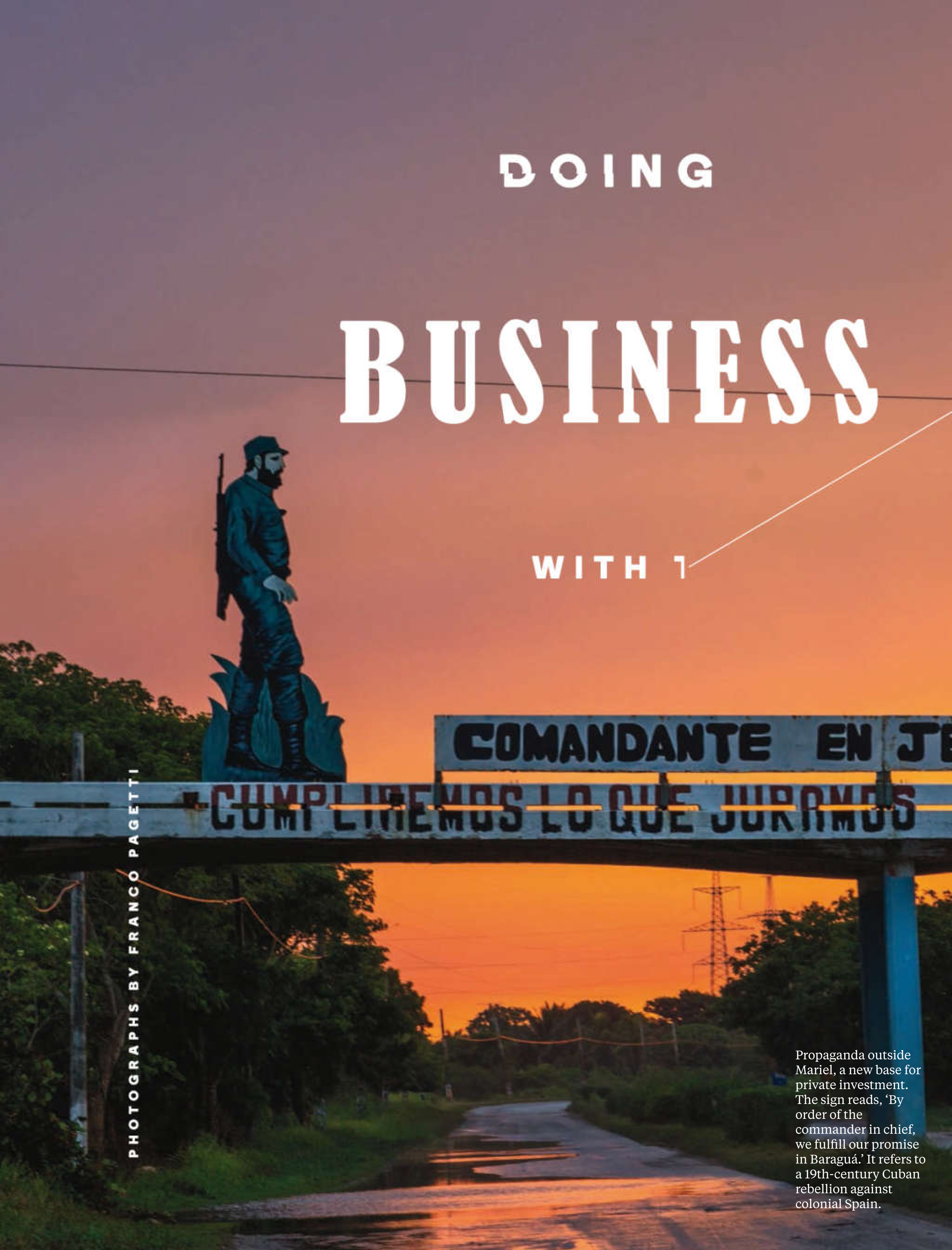
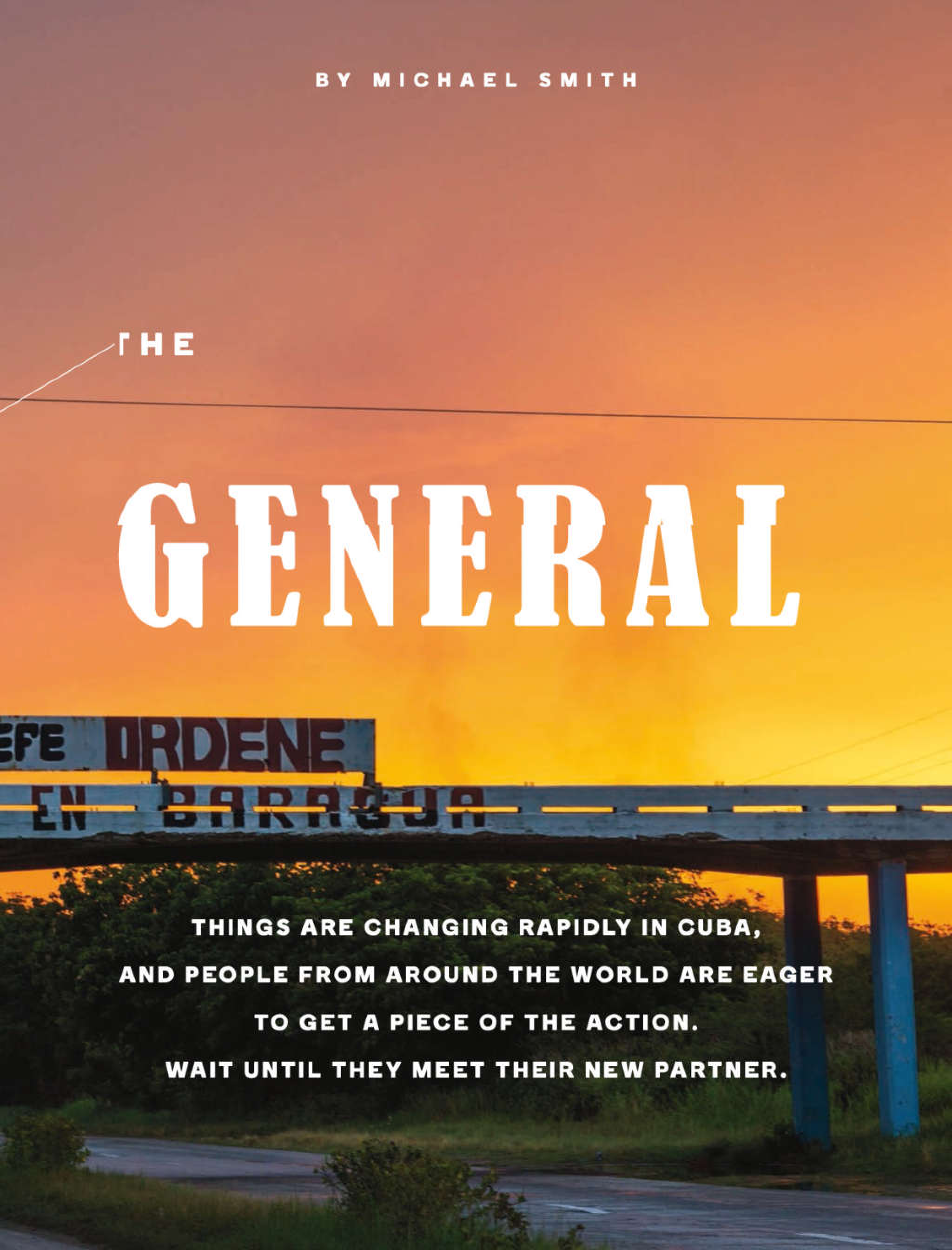


PHOTOGRAPHS BY FRANCO PAGETTI

Propaganda outside Mariel, a new base for private investment. The sign reads, 'By order of the commander in chief, we fulfill our promise in Baraguá.' It refers to a 19th-century Cuban rebellion against colonial Spain.

BY MICHAEL SMITH

THE GENERAL



THINGS ARE CHANGING RAPIDLY IN CUBA, AND PEOPLE FROM AROUND THE WORLD ARE EAGER TO GET A PIECE OF THE ACTION. WAIT UNTIL THEY MEET THEIR NEW PARTNER.

OMAR EVERLENY PÉREZ is eager to show me how far Raúl Castro's overhaul of Cuba's socialist economy has advanced, and so, on a muggy evening in August, the 54-year-old economist invites me into his home in Havana's Marianao neighborhood. Above his cramped desk, shelves sag under the weight of economics books and monographs, including more than a dozen that Pérez wrote. "Just look at this," he says, pointing to the screen of his wheezy black desktop PC. He clicks on a file, and scenes of Havana's colonial-era port appear. A female narrator with a soothing voice describes a 14-part government plan to replace the gritty piers with cruise ship terminals, restaurants, and hotels, all to be bankrolled by foreign investors. Run-down warehouses fade digitally into luxury apartments, shops and offices, and marinas crowded with yachts. Little virtual people jog and bike along greenways where an oil refinery now sits, and a ferry glides into a modern glass-and-steel terminal.

"It's really visionary, what they want to do, if you think about it," says Pérez, a professor at the University of Havana and a researcher at the influential Center for the Study of the Cuban Economy.

Later, a few steps from the port in Old Havana, I see the city's redevelopment in progress. Near El Floridita, where Ernest Hemingway once knocked back daiquiris, the hulking Manzana de Gómez building is being transformed into a five-star hotel. Stylish boutiques sell perfume and stereos. Inside an old warehouse is a microbrewery teeming with people drinking lager made in huge steel tanks imported from Austria.

What isn't immediately apparent to a person taking a walk on a warm Caribbean night is that all of this—and anything else that stands to make money in Old Havana, and much of the rest of the country—is run by a man who is little known outside the opaque circles of Cuba's authoritarian regime. A quiet general in the Revolutionary Armed Forces, Cuba's multibranch military, he has spent his life around the communist elite that served Fidel Castro's revolution. Yet he is chairman of the largest business empire in Cuba, a conglomerate that comprises at least 57 companies owned by the Revolutionary Armed Forces and operated under a rigid set of financial benchmarks developed over decades. It's a decidedly capitalist element deeply embedded within socialist Cuba.

Half or more of Cuba's business activity runs through Luis Alberto Rodriguez.

This is Luis Alberto Rodriguez. For the better part of three decades, Rodriguez has worked directly for Raúl Castro. He's the gatekeeper for most foreign investors, requiring them to do business with his organization if they wish to set up shop on the island. If and when the U.S. finally removes its half-century embargo on Cuba, it will be this man who decides which investors get the best deals.

Rodriguez doesn't just count Castro as a longtime boss. He's family. More than 20 years ago, Rodriguez, a stocky, square-jawed son of a general, married Deborah Castro, Raúl's daughter. In the past five years, Castro has vastly increased the size of Rodriguez's business empire, making him one of the most powerful men in Cuba. Rodriguez's life is veiled in secrecy. He's rarely been photographed or quoted in the media, and his age isn't publicly known. (He's thought to be 55.) Rodriguez and the other Cuban government officials in this story declined multiple requests for comment.

In a country where capitalism was treated as a subversive enemy force for a half-century, Raúl Castro has been cautiously opening the island to private enterprise since he succeeded Fidel as president of the country in 2006. Daily life has changed for many people. There are now 201 permitted types of private businesses (restaurants and bed-and-breakfasts are the biggest categories), employing a million people, or a fifth of the Cuban workforce, according to Pérez and other economists.

Raúl Castro has legalized the sale of homes and cars, scrapped travel restrictions, and allowed private farming and cooperative businesses. It's now legal for Cubans to stay in hotels, and 2.6 million people own cell phones, up from close to zero a decade ago.

But Castro has kept the big-money industries in the hands of the state, and much of it is managed by his son-in-law. (Or former son-in-law; there are rumors, difficult to confirm, that Rodriguez and Deborah Castro have divorced.) Rodriguez's Grupo de Administración Empresarial runs companies that account for about half the business revenue produced in Cuba, says Peréz. Other economists say it may be closer to 80 percent.

GAESA, as it's called (it's pronounced *guy-A-suh*), owns almost all of the retail chains in Cuba and 57 of the mainly foreign-run hotels from Havana to the country's finest Caribbean beaches. GAESA has

AGENCIA ANGOLAPRESS

People gather within a government-provided Wi-Fi zone in Havana. For most Cubans, it's the only way to get online.

restaurant and gasoline station chains, rental car fleets, and companies that import everything from cooking oil to telephone equipment. Rodriguez is also in charge of Cuba's most important base for global trade and foreign investment: a new container ship terminal and 465-square-kilometer (180-square-mile) foreign trade zone in Mariel.

Cubans talk constantly about the changes they've seen. But for a majority of people, Castro's reforms haven't delivered that most basic thing: a living wage. Salaries average just 584 pesos, or about $24, a month, government figures show. That's what it costs to buy 2 kilos (4.4 pounds) of chicken breasts, a couple bags of rice and beans, and four rolls of toilet paper in one of GAESA's Panamericana supermarkets. Costs are sky-high for most people because they earn Cuban pesos but everything they have to buy is priced in a parallel, dollar-linked currency called Cuban convertible pesos, or CUCs.

On a breezy Saturday morning, I head to the neighborhood of La Timba, down a warren of streets lined with tin-roofed shanties and piles of rotting garbage. It's all within sight of the hulking, Soviet-inspired monuments of Plaza de la Revolución, where Fidel Castro used to speak for hours on end and Raúl Castro has his offices.

Dayanis Cabrera, 38, calls me into her home, three rooms built from cracked cinder blocks and rotting planks. The intense morning sun pierces the darkness through gaps in the corrugated-metal roof. Her elderly father, who's suffering from cancer, lies on a bare mattress in the small bedroom to the left. Cabrera leafs through her little, 22-page food-rationing booklet, which lists the staples every Cuban can get for next to nothing at government food depots.

"No one can live off this," she says, sitting in her kitchen, where a tattered curtain serves as a door. Her family's rations: a half-pound of chicken, 10 eggs, one pack of spaghetti, a half-kilo of black beans, and a half-pint of cooking oil per person per month. Shortages of food are rare, but the price of most things is simply prohibitive. "I'm just hopeful that all this change will bring a living wage," Cabrera says, shaking her head.

As we speak, she's loading a metal tray with peanuts she's roasted over her gas stove. She'll take them around her neighborhood and try to sell them on the street.

Most Cubans have to scrape and hustle to put together a decent living. Nearly everyone I meet in Havana has a story of moonlighting in odd jobs or even stealing to make up for dismal pay. One friend's father sells Cohiba cigars pilfered from the factory where he works. A young engineer drives tourists around in his mother's Lada to supplement his $19.59 monthly salary as a university professor.

Since Dec. 17, when Castro and President Barack Obama announced plans to normalize U.S.-Cuban relations, the country has been abuzz with talk of money to be made. You hear Cubans everywhere speaking giddily about the imminent end to the U.S. embargo that's hobbled the country for half a century.

On Aug. 14, I walk to the U.S. embassy on the Malecon seaside promenade to watch U.S. Secretary of State John Kerry order a Marine honor guard to run up the U.S. flag, for the first time in 54 years. I am among thousands of cheering Cubans. Some weep, holding homemade American flags. Digmari Reyes, a 27-year-old worker at a finance company owned by GAESA, stands there afterward, smiling broadly. She'd waited three hours in the searing heat to watch the flag go up. "This has to bring something good, some prosperity for the vast majority of us who don't earn enough to live a dignified life," Reyes says, as people surge past her to take selfies with the embassy's flag in the background.

I **MEET ALCIBIADES HIDALGO,** an eloquent man of 70 who spent decades working in Cuban state media and government posts, at an Italian restaurant in Doral, a prosperous Latino neighborhood in Miami. He's part of a network of Cuban defectors and self-described exiles engaged in a cottage industry of sorts, that of forecasting Raúl Castro's next move.

Most of the hotels and attractions at Varadero are owned by GAESA and run by international chains.

Hidalgo wants to offer his perspective on how Castro plotted the changes Cuba is now experiencing.

In April 1981, Castro called Hidalgo, then a young diplomat, into his sprawling office on the fourth floor of the headquarters of the Revolutionary Armed Forces. He directed Hidalgo to join a handful of powerful advisers who, among other things, were going to overhaul the economy. Unlike his impulsive, autocratic brother, Castro was always a conciliatory, methodical commander who preferred change when it was gradual, well planned, and, above all, efficient. He ordered his advisers to scour the world for interesting economic policies that might be adapted to Cuba. "Raúl always wanted to study economic experiments and apply them to the economic model," says Hidalgo.

One of the most powerful advisers of them all was general Julio Casas, a bank accountant–turned–guerrilla commander who fought under Castro's command during the revolution. In meetings, Castro praised Casas for his stingy nature, which was applied to controlling costs and improving efficiency in whatever mission he was given. Castro put Casas to work building what would become GAESA. Casas's top aide was Rodriguez, who would sit quietly near Casas in meetings with Castro, talking only when addressed, Hidalgo recalls.

Casas built GAESA around wringing revenue from the military's properties and assets. Soldiers planted crops on fallow swaths of bases. Work brigades built tourist hotels. Military planes were refitted for domestic passenger flights for GAESA's ad hoc civilian airline, Aerogaviota. Casas, assisted by Rodriguez, also helped develop a benchmarking process for state companies called the Business Improvement System. "Under Raúl, the military had its own, parallel economy," Hidalgo recalls.

As Casas started new businesses, he put Rodriguez in as manager. "Luis Alberto was not very sophisticated," says Hidalgo, who rose to become Castro's chief of staff. (In 2002, Hidalgo fled Cuba at night in a speedboat, bound for Miami, after being sidelined and then blacklisted for almost a decade, in one of the regime's political purges.) "But he was an efficient manager who was cold and calculated in his pursuit of power."

With the collapse of the Soviet Union in 1991, Cuba lost its economic patron, and the country was plunged into a crushing four-year contraction known as the Special Period. Cubans endured shortages of food and medicine. Jobs disappeared. The sugar industry, which had long supplied the Soviets at inflated prices, fell apart. In 1993, Cuba's gross domestic product shrank 14.9 percent, according to the World Bank.

Fidel Castro responded with schemes

IF AND WHEN THE U.S. REMOVES ITS HALF-CENTURY EMBARGO ON CUBA, IT WILL BE THIS MAN WHO DECIDES WHICH INVESTORS GET THE BEST DEALS.

Todo Es GAESA

Grupo de Administración Empresarial, known as GAESA, was founded to generate revenue for the Cuban armed forces. GAESA is now a holding company that owns at least 57 companies across various services and industries. Here are some of the most prominent.

TOURISM

These businesses all operate under the umbrella of Grupo de Turismo Gaviota:

Hoteles Gaviota: owns and co-owns 57 hotels, most of them operated by international hotel franchises, led by Meliá Hotels International, Blue Diamond Resorts, and Iberostar Hotels.

Marinas Gaviota: operates marinas and resorts.

Transgaviota: operates car rental and tourist transport services.

Aerogaviota: operates a charter airline service.

AT Comercial: sells hotel supplies.

Gaviota Tours: provides wholesale travel services.

REAL ESTATE AND DEVELOPMENT

Almacenes Universales: oversees the Port of Mariel and a surrounding development zone. Also owns and is redeveloping the Port of Havana.

Habaguanex: owns most of the prime commercial space in Old Havana, including 37 restaurants and 21 hotels.

IMPORT-EXPORT

Tecnotex: supplies imported goods to retailers.

Tecnoimport: imports goods for industrial and military use.

Petraf: imports oil-and-gas exploration and refinery equipment.

FARMING AND MANUFACTURING

Unión Agropecuaria Militar: runs farms that produce food for military troops and for civilian consumption.

Union de la Industria Militar: manufactures weapons and vehicles for the military and for sale in the international market.

Cubagro: sells farming supplies.

FINANCIAL SERVICES

Financiera Cimex: makes consumer loans and provides wire transfer services.

Rafin: makes commercial loans to other GAESA companies.

RETAIL

Tiendas de Recuperación de Divisas (Hard Currency Recovery Stores), or TRD: sells imported goods, mostly to foreigners.

Tiendas Panamericanas: operates small supermarkets and convenience stores.

Cafeterias El Rapido: operates convenience stores with fast-food restaurants.

Cupet-Cimex: operates gasoline service stations.

Coral Negro: operates jewelry stores.

La Maison: arranges fashion shows and offers fashion design services.

Sources: Company websites, Economic and Trade Office of the Spanish embassy in Havana, Havana Consulting Group

to lure foreign money into Cuba. He legalized the possession of hard currency. He allowed people to start dozens of kinds of private businesses, including family restaurants.

Big change came to GAESA as well. Its tourism arm, Grupo de Turismo Gaviota, cut deals with international chains, most notably Spain's Meliá Hotels International and Iberostar Hotels & Resorts, to build and run hotels and resorts in Varadero, a 20-kilometer stretch of white, sandy beach two hours east of Havana by car.

By the late 1990s, the Castros had found their savior in Hugo Chávez, the charismatic ex-paratrooper who was elected president of Venezuela on promises to emulate Cuban-style socialism. He quickly flooded Cuba with free oil—up to 115,000 barrels a day. Cuba also cut creative and lucrative deals with other leftist leaders, including Brazil's Luiz Inácio Lula da Silva, to send tens of thousands of medical doctors to work abroad. Under the terms of those deals, many of which are still in place, the Cuban government kept up to 90 percent of the doctors' wages.

After Chávez died of cancer in March 2013, Venezuela slid into an economic crisis. The country slashed oil shipments to Cuba—some estimates say by a third or more. Cuba once again needed cash.

"Raúl Castro has to open Cuba up to the world, to the capitalist, free-market world. He has no choice," says Emilio Morales, a former marketing executive at Cimex, a big conglomerate later folded into GAESA. Morales, too, now lives in Miami, where he runs the Havana Consulting Group. He has

A street scene in Old Havana, which is quickly becoming new Havana

developed an unmatched database of thousands of new, private businesses in Cuba.

Morales opens his laptop to take me through his analysis of the new Cuban economy. According to his research, people made 650,000 trips to Cuba from America last year, taking advantage of Obama's and Castro's relaxed travel restrictions. "Look at this," he says, pointing to a 2013 survey of travelers to Cuba. "They brought $3.5 billion of goods with them in their suitcases." And Cuban-Americans sent $3.1 billion to relatives in Cuba. "It's a huge impact."

So much has changed in Cuba, but so much hasn't. In August alone, the month the flag was raised over the U.S. embassy, security forces made 913 politically motivated arrests, according to the Cuban Human Rights Observatory. Castro's government represses dissent, routinely harasses independent journalists and activists, and restricts access to the Internet for the vast majority of Cubans, Human Rights Watch says.

Foreign businesspeople are not immune. Sarkis Yacoubian, a 55-year-old Canadian, made his home in Cuba for two decades, building a company called Tri-Star Caribbean. He sold cars, trucks, and industrial equipment, mainly to GAESA-owned companies. On July 13, 2011, armed internal security troops—Cuba's secret police—swarmed Yacoubian's office. He was held for more than two years as police interrogators leveled allegations of tax evasion, corruption, and, ultimately, espionage.

Investigators seemed to believe, Yacoubian says, that the BMWs a GAESA executive expressed interest in buying contained technology that would allow Cuba's enemies to track Raúl Castro. Yacoubian denied all the allegations. After a quick trial in mid-2013, a Havana court sentenced Yacoubian to nine years in prison and fined him $7.5 million on charges of bribery, tax evasion, and causing economic harm to Cuba, documents in the case show. Then, in February 2014, Yacoubian was suddenly released without explanation and put on a plane to Canada.

The Cuban justice ministry seized Tri-Star Caribbean's assets, valued at $20 million. Most of them were absorbed by GAESA's Almacenes Universales and other companies Yacoubian did business with. "They took everything from me," Yacoubian says. "I was completely innocent."

CUBA IS A PLACE BOTH frozen in time and moving swiftly toward a future in which private enterprise will be a bigger part of life. Vast areas of Havana are little changed from 1959, when Fidel Castro's bearded guerrilla fighters marched into town. The streetscapes are largely free of billboards and ads. Vintage American cars are, as promised, everywhere. As for the fast-arriving future, there are Afro-Cuban jazz clubs, swank private restaurants, and boutique hotels. More tellingly, on street corners within the few, closely controlled, government-sponsored Wi-Fi zones, Cubans by the hundreds sit and stand all day in the tropical sun, clutching phones, tablets, and laptops, eager to take advantage of the first chance many have ever been given to connect.

What's amazing about all this is how Raúl Castro has managed to convince the most die-hard followers of Cuba's socialist revolution to embrace his capitalist changes. After succeeding his brother as head of state, Castro placed a series of reform proposals before a powerful body he leads, the Council of State.

Miguel Barnet, a famous Cuban anthropologist, author, poet, and translator who sits on the council, says he's no economist but he was convinced that Cuba had to embrace Castro's vision. "We need to develop, and these changes will help us do it without sacrificing the revolution," says Barnet, 75, who in conversation toggles between Spanish and near-perfect American English, which he polished in New York, where he spent several months after winning a Guggenheim Fellowship in 1983.

The members of the council debated and shaped Castro's proposals endlessly. In April 2011, the Cuban Communist Party's Sixth Congress approved 313 Economic and Social Policy Guidelines of the Party and the Revolution.

In early 2013, Marino Murillo, who's known as Castro's economic reform czar, called 20 of Cuba's top economic minds to his office on Plaza de la Revolución. They were leaders of university departments, think tanks, and foundations, including Pérez. Murillo, a general known for his straight talk and blunt style, didn't mince words. He told them to use their knowledge to turn the guidelines into policies that would reshape the Cuban economy.

Murillo ordered one group, which included Pérez, to come up with proposals to overhaul Cuba's 1995 foreign-investment law. They had to sum it up in fewer than 32 pages, following a strict PowerPoint-like format used in the Cuban military. Pérez and six other economists studied foreign-investment laws from around the developing world. Six months later, they gave their pitch to a panel of military commanders, government officials, and economists. The changes they proposed included allowing foreign companies to own 100 percent of their ventures in Cuba, up from 49 percent, and giving them an eight-year respite from paying taxes. "They asked a lot of hard questions. There

WHAT'S AMAZING IS HOW RAÚL CASTRO HAS CONVINCED THE MOST DIE-HARD FOLLOWERS OF THE REVOLUTION TO EMBRACE HIS CAPITALIST CHANGES.

Cuban capitalism on a small scale: a fruit stand in Old Havana

was a lot of reflection, trying to square it with their ideology," Pérez says. The National Assembly of People's Power, Cuba's legislative arm, approved the new law in March 2014. "In the end, they accepted 80 percent of what we proposed," Pérez says.

By then, Castro had already moved Cuba's most profitable state companies under GAESA and Luis Alberto Rodriguez. The biggest addition to GAESA was Cimex, which had been run for three decades by military commanders chosen by Fidel Castro. Adding the Cimex companies more than doubled the size of GAESA. More recently, Rodriguez was given the green light to take over Habaguanex, the state company that owns the best commercial real estate in Old Havana, including 37 restaurants and 21 hotels.

Rodriguez rarely deals with clients, apparently preferring to delegate to the managers who run GAESA's collection of companies. Early one morning, Mohamed Fazwi, who runs operations in Cuba for Blue Diamond Resorts, a Barbados-based hotel chain, meets me for coffee at Memories Miramar Havana, set amid a cluster of grand art deco and neoclassical mansions. Fazwi has been busy since 2011, when Blue Diamond won its first hotel contract in Cuba.

The company now manages 14 hotels across Cuba, with 8,600-plus rooms, second to the Meliá group. Many of Blue Diamond's contracts are with GAESA's Hoteles Gaviota, the biggest state lodging company. "The executives we deal with are very, very knowledgeable and active. They know what they want and are really good negotiators," says Fazwi, 43, a man of Spanish-Palestinian descent who moved to Cuba in 2008. "They are savvy."

Rodriguez seemed to be more hands-on in Mariel, where he was entrusted with building the $1 billion megaport and surrounding free-trade zone. As the vast ship terminal rose atop an abandoned U.S. air base by the old Mariel port, where Fidel Castro allowed 125,000 people to flee to the U.S. in 1980, Rodriguez regularly assembled his engineers for progress reports. Rodriguez liked to listen more than talk, according to people who dealt with him in these meetings. But when he spoke, Rodriguez was concise, specific, and crystal clear. The government saw the port and the surrounding special development zone as a gateway for a new economy for Cuba, Rodriguez explained. It would anchor a wave of international trade, factories, and economic growth.

On Jan. 27, 2014, the port was ready, and dignitaries took their seats under a brilliant sun for the formal opening. On the stage was Castro, Venezuelan leader Nicolás Maduro, and Brazilian President Dilma Rousseff. The port, a collection of more than a dozen big cranes, a 700-meter-long pier designed to handle the world's biggest container ships, a highway, and a rail line to Havana, had been built by Brazil's mightiest construction company, Odebrecht SA. It was financed at subsidized rates by Brazil's state development bank in a deal negotiated directly between Castro and Lula, the former Brazilian president.

Rousseff, smiling, walked up to the podium and started her speech with the customary naming of dignitaries in the crowd. She thanked Castro and unnamed Cuban ministers, foreign executives, and leaders. And just before she leaned into her short address, she thanked one more person by name: GAESA Chairman Luis Alberto Rodriguez. BM

BLOOMBERG TIPS

Following Developments in Cuban Trade

Bloomberg Intelligence's dashboard on global trade includes research on opportunities in Cuba in the wake of its reopening of relations with the U.S. Type **BI TRDEG <Go>** on the Bloomberg Professional service. Scroll down and click on Cuba Theme Archive. You can use the Trade Flow (ECTR) function for a snapshot of Cuba's imports and exports. Type **ECTR <Go>**, tab in to the field, enter *CUBA*, and click on the match. To see how the country's trade has changed since 2000, enter *2000* in the second field to the right of Periodicity, and press <Go>. Then click on the >> button to move through the past decade and a half.

JON ASMUNDSSON

THE PHILIPPINES: RIDING THE DEMOGRAPHIC BOOM.

The Invest ASEAN, Philippines conference, recently organised by Maybank, has highlighted the many reasons why investors should be taking a close look at opportunities in the Philippines.

As the second largest country in ASEAN, with the region's fourth largest economy, the Philippines has been transitioning, to position itself as one of the key beneficiaries of the ASEAN Economic Community, as the region becomes a single market place.

THE DEMOGRAPHIC DIVIDEND

The demographic dividend, a growth feature for all ASEAN economies, is especially significant for the Philippines.

With a decline in its fertility rate, to 3 children per woman in 2013 from 6.3 in 1970, the Philippines is on the cusp of entering the demographic Goldilocks period, when an average woman is likely to have 2.1 children, the replacement fertility rate. Transitioning to this level unleashes the potential for positive economic developments.

As the size of the work force increases, relative to young and old dependents, there is a demographic bulge in the number of working-age adults, which creates investment opportunities for governments, businesses and individuals.

For the government it allows a shift in expenditures from education and health services into investments that promote growth. For businesses there is an abundance of energetic, ambitious and well-educated young workers to support expansion. And for individuals there is not only more spending power but also the opportunity to accumulate savings that can be used for investments.

STRONG ECONOMIC FUNDAMENTALS

The Philippines' economy is one of the fastest growing in Asia, having grown at a rate of 6.1% in 2014 and 7.2% in 2013, according to national statistics. It is also forecast to be one of the fastest growing economies globally this year.

In this period of global volatility the Philippines stands out for sustaining a steady performance.

Domestic demand is robust and is projected to remain so over the next few years. A significant contribution will come from the middle class, which is forecast to grow 72% between 2012 and 2020, and which should sustain continuous demand for higher quality goods and services.

The Philippines' current account surplus has remained consistent, recording its highest surplus of $12.6 billion in 2014, supporting the local currency in a strong USD environment.

A strong banking system, with abundant liquidity, is in a sound position to finance expansion and there is ample fiscal space that allows strong growth in government spending. The Philippines has the "good" problem of trying to accelerate government spending instead of trying to bring down the government deficit or public debt as is the case with most countries these days

EMERGING GROWTH CENTRES

The Invest ASEAN, Philippines conference included a site visit to the province of Iloilo, a region that showcases a microcosm of the investing opportunities available in the Philippines.

While Metro Manila is generally the focus of investor interest, the economic activity in the provinces is creating new venues for investors to take advantage of growth. Through visits to a number of corporations who have established themselves in the region, Maybank was able to show visitors the speed of progress in developing new infrastructure, educational institutions and good local governance outside of the main population areas.

Hans Sicat, President and CEO, Philippine Stock Exchange

Lorenzo Tan, President & CEO, Rizal Commercial Banking Corporation

Jose Ma. A. Concepcion III, President & CEO, RFM Corporation

Anthony T. Huang President, SSI Group, Inc.

The development that is taking place in Iloilo is being replicated in other provincial regions, and, according to Maybank, the economic activity in the provinces will prove to be a prime attraction for investors and key factor in the future of the Philippines.

THE TIME IS NOW

Having had an on-ground presence in the Philippines for the last three decades, Maybank understands the market well.

ASEAN's time is now, and the Philippines is very well-placed to be a major recipient of the global interest that is focussing on the economic grouping, as it becomes a single marketplace under the ASEAN Economic Community.

ASEAN has been aptly described as "opportunity with a capital 'O' ", and the Invest ASEAN series of conferences has managed to highlight the many dimensions of that opportunity as is moves from country to country.

CAPITALISE ON THE RISE OF THE ASEAN CONSUMER

#beASEAN

Maybank
Kim Eng

COUNTRY FOCUS

ISLAND OF STABILITY

THE PHILIPPINES HAS NOTCHED THE FASTEST GROWTH SINCE THE 1970s AND AVOIDED THE EMERGING-MARKETS MELTDOWN. CAN THE NEXT PRESIDENT KEEP THE MOMENTUM GOING?

BY
NORMAN
P. AQUINO

ILLUSTRATION
BY
SEAN McCABE

Candidates vying to replace President Benigno Aquino, center, may include Interior Secretary Mar Roxas, left, and Vice President Jejomar Binay.

FOR KASH SALVADOR, CRANES MEAN MONEY, AND THESE DAYS THE COASTLINE OF MANILA BAY IS FULL OF THEM.

Cranes work on Luzon, the island that's home to the Philippine capital. Property analyst Kash Salvador, below, is benefiting from the building boom.

The young property analyst scouts out locales for corporate clients eager to set up shop in the capital of one of Asia's fastest-growing economies.

Salvador, 26, started his real estate career in 2010, about the time Benigno S. Aquino III won a landslide presidential election victory, and he has ridden the Aquino boom. The new president took office pledging to tackle corruption, fight poverty, and wipe out a budget deficit that had dragged on the economy for 21 of the previous 25 years. By 2009, the shortfall was almost 300 billion pesos ($6.4 billion), or 3.9 percent of gross domestic product.

By many measures, Aquino has delivered. Once Asia's "sick man," the Philippines earned World Bank commendation as the continent's "rising tiger" in 2013, three years into his tenure. The nation of 108 million has posted 6.6 percent average annual growth since 2012, its best pace since the 1970s. Aquino has shrunk the deficit too. It stood at 73 billion pesos at the end of 2014, equivalent to 0.6 percent of GDP. In March 2013, Fitch Ratings elevated Philippine debt to investment grade for the first time ever.

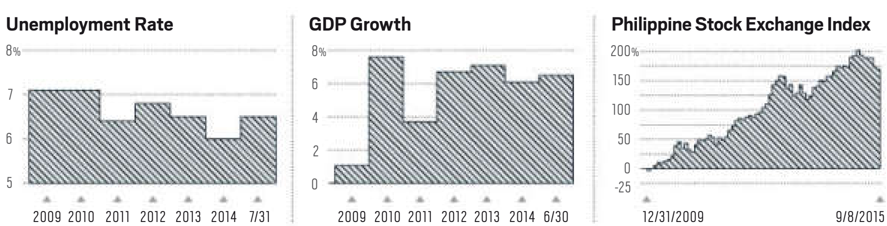
Salvador's prospects have risen with the economy. Today, he's a midlevel manager making enough money to get a car loan. His sister is about to finish medical school with his support. "The property industry has benefited from the country's economic resurgence, and I told myself if I worked hard enough, things will happen," he says.

The Philippines hasn't been immune to the funk spreading through emerging markets. The economy grew 5.6 percent in the three months that ended in June, more slowly than analysts had expected. The country might have a hard time reaching Aquino's growth target of at least 7 percent for the year, Economic Planning Secretary Arsenio Balisacan said in August. China's slowdown, gyrating stock markets, and currency devaluations from Kazakhstan to Vietnam add to investor unease. "Despite improved fundamentals and the stamp of assurance from credit-rating agencies, contagion among emerging-markets economies will ensue," says Emilio Neri, an economist at Bank of the Philippine Islands in Manila.

The Philippines has a few things going for it to fight the contagion. So far, the consumption-based economy has made the country more resilient as demand from trading partners has slowed. Steady dollar inflows from Filipinos working overseas mean greater ability to buy imports and pay the nation's debt. And relatively low levels of foreign investment in Philippine bonds and stocks are shielding the country from an intensifying selloff. The Philippine Stock Exchange Index returned 138 percent from July 1, 2010, through Sept. 8, including reinvested dividends. "We can expect economic performance that is still strong, albeit more modest than the government's full-year target," Amando Tetangco, governor of the central bank, said in late August.

The biggest wild card in the Philippines is May's presidential election. Aquino, 55, can't run again because of the nation's six-year term limit. His protégé, Interior Secretary Mar Roxas, is sparring with Vice President Jejomar Binay over Aquino's record. Candidates won't file their intentions to run until October. But Roxas, a member of the ruling Liberal Party, has pledged

Bouncing Back Things have been looking up since Aquino was elected in May 2010.



Sources: Bloomberg, Philippine government

PREVIOUS SPREAD: AQUINO: JULIAN ABRAM WAINWRIGHT; BINAY AND ROXAS: FRANCIS R. MALASIG/EPA/CORBIS; BACKGROUND: PALACE: PAUL ALMASY/CORBIS; CONSTRUCTION: RITCHIE B. TONGO/EPA/CORBIS; RICHARD JAMES MENDOZA/PACIFIC PRESS/ALAMY LIVE NEWS; TRAFFIC: JES AZNAR/BLOOMBERG; STOCK EXCHANGE: SANJIT DAS/BLOOMBERG. THIS PAGE: TOP: RICHARD JAMES MENDOZA/PACIFIC PRESS/CORBIS; SALVADOR: COURTES; CBRE PHILIPPINES

to continue Aquino's anti-poverty, anti-corruption agenda.

Binay's United Nationalist Alliance counters that growth has benefited only a few, and a quarter of Filipinos remain poor. "The lack of inclusive growth despite rapid economic development reflects the administration's emphasis on short-term, Band-Aid solutions," says Eufracia Taylor, Asia analyst at risk-consulting firm Verisk Maplecroft. Senator Grace Poe, an independent who announced her intention to run on Sept. 16, leads in opinion polls, with Binay second and Roxas third in one midyear tally. "The elections bring political uncertainty," Salvador says. "You'll never know when investor confidence will fizzle out."

Aquino, the son of pro-democracy politicians, has helped lift a nation weighed down by military rule, widespread corruption, and domination by the landed elite. His mother, Corazon Aquino, led opposition to dictator Ferdinand Marcos after the 1983 assassination of her husband, former senator Benigno Aquino Jr. She went on to become president in 1986. During Aquino III's term, former President Gloria Arroyo and three senators were arrested and imprisoned for graft. They have all denied the charges in court. Their trials are ongoing.

Aquino has recouped unpaid taxes and used the money to fund roads and schools.

Pedestrians walk past stalled traffic in Manila.

Internal revenue collection in 2012 exceeded 1 trillion pesos for the first time, a 14 percent increase from the previous year. Net foreign direct investment reached a high of $6.2 billion last year, almost four times the level in 2010. This year, outflows have increased, however, with overseas investors withdrawing a net $1.24 billion from Philippine shares from April through August, a five-month record.

Salvador's field, property development, is surging. About 2.5 million square meters (27 million square feet) of office space will rise in Metro Manila in the four years through 2018, property adviser Colliers International predicts. More than 33,000 residential units will come to market during that time.

To help rural residents, Aquino has allocated 339 billion pesos for agriculture in the five years through 2015, about as much as the three previous administrations spent in 17 years. Funds for education increased 23 percent in 2013, a sum that let the government eliminate a backlog of 66,800 classrooms and 146,000 teachers.

To keep the Philippines growing, the new president will have to tackle Manila's strained infrastructure. During most of the day, the metro area's main highway is a giant parking lot. Commuters endure long lines before elbowing into decrepit elevated trains that often stall. Transit woes cost 876 billion pesos in lost productivity each year, according to the Japan International Cooperation Agency. That sum could more than double to 2.19 trillion pesos by 2030, the JICA says.

Not everyone is happy about Aquino's record on fighting poverty and increasing jobs. While the unemployment rate fell to 6 percent last year, its lowest in a decade, that number obscures a problem with underemployment: 17.8 percent of workers with advanced education degrees work in low-skill areas. Schooled urban workers have benefited from a boom in call centers, but millions of rural poor have yet to see prosperity trickle down. Aquino counters by saying his support for the poor will take time to yield results.

Aquino's government has also failed to stem the migration of Filipinos overseas, says Fernando Aldaba, dean of Ateneo de Manila University's School of Social Sciences. "Aquino's successor must continue the resurgence of the manufacturing sector and revive agriculture while crafting a better anti-poverty strategy," he says.

Salvador, for his part, knows the prosperity he's enjoyed under Aquino could evaporate under his successor—whoever that is: "We're a developing country, and it's easy to backtrack if we don't have a good leader." BM

With assistance from **Siegfrid Alegado** and **Clarissa Batino.**

JES AZNAR/BLOOMBERG

BLOOMBERG TIPS

Tracking the Economy of the Philippines

For an overview of the Philippines' financial markets, type **COUN PH <Go>** on the Bloomberg Professional service. Click on the Economics tab for a snapshot of key indicators for the nation. Click on Real GDP to chart historical and forecast growth in the country's economy. For a calendar of economic data releases, type **ECO PH <Go>**. To search for economic data, type **ECST S PHILIPPINES <Go>**. To display forecasts for the Philippine peso, type **FXFC PHP <Go>**. For the home page of the central bank of the Philippines, type **CBPH <Go>**. For headlines of top news stories related to the country, type **TOP PHIL <Go>**.

JON ASMUNDSSON

$479,000

STRATEGIES

PROFILE

Making Volatility Your Friend

Intech's Adrian Banner uses math to capture gains from price swings. The firm's flagship strategy has topped the S&P 500 by 1 percentage point a year for 28 years.

BY JON ASMUNDSSON

VOLATILITY REPRESENTS RISK for most investors. For Intech Investment Management, it's a source of return.

Adrian Banner, Intech's CEO, says his firm doesn't pick stocks, read brokerage research, look at fundamental data, or forecast individual stock returns. Instead, Intech's team starts with a universe of stocks, estimates their volatilities, and uses those numbers to come up with an optimized set of portfolio weights. Each week, they rebalance to the weights.

Banner says the firm's approach to investing is based on research started more than 30 years ago by its founder, mathematician Robert Fernholz. "In 1982, he first had the realization that one could build portfolios that should be more efficient than a cap-weighted equity portfolio—without picking securities," Banner says. "It's possible to do that using only the volatilities and the correlations between stocks."

While that idea may still sound novel today, there's a lot of solid math behind it, Banner says. "The challenge was turning that math into real portfolios," he says.

Intech started doing that in July 1987, when it launched its flagship Intech U.S. Enhanced Plus portfolio. The $13.4 billion strategy, which invests in Standard & Poor's 500 Index stocks, returned 10.35 percent a year on average net of fees from July 1, 1987, through Aug. 31. That was 1.05 percentage points better than the 9.3 percent annual return of the benchmark over the 28-year period. Gross of fees, the strategy outperformed by 1.45 points. Intech oversees about $51 billion in assets, mostly for institutions. The 86-person firm is a subsidiary of Denver-based Janus Capital Group.

WHEN BANNER, 40, was growing up in Sydney, Australia, he was equally interested in music and math. He earned a Ph.D. in math at Princeton University and joined Intech as director of research in 2002. A jazz pianist, he sometimes plays before meetings at the firm's West Palm Beach, Florida, headquarters and has performed at the Montreal International Jazz Festival.

Banner says Intech's basic insight is simple. Consider a stock. Over a couple

ADRIAN BANNER

CEO,
INTECH INVESTMENT MANAGEMENT

- Aims to pick up excess return from **volatility**.
- Uses math to optimize **portfolio weights**.
- **Rebalances** weekly.

Adrian Banner, fund manager, math whiz, and jazz pianist, tries out the piano at the Carlton Hotel in New York.

PHOTOGRAPH BY **ROBYN TWOMEY**

of years, its trend may be up. Yet along that general course, the stock will tend to make a variety of moves—zigzags above and below the trend. "So that's volatility," Banner says. "And it can be harnessed—if one is willing to trade."

VOLATILITY CAN BE HARNESSED—IF YOU'RE WILLING TO TRADE, BANNER SAYS.

The swings offer opportunities to buy low and sell high. The way to do that, Banner says, is to first establish a policy for weighting the stocks in a portfolio. Then, as prices move, rebalance back to the weights. Rebalancing in essence buys low and sells high, Banner says. "You're selling previous winners, which by definition are high, and you're using that capital to buy previous losers," he says.

How much juice can rebalancing add? Intech has worked that out in its math. The key to it is compound return, Banner says. Let's say you buy a stock for $100 and hold it for two periods. In the first, it gains 25 percent. In the second, it drops 20 percent. The average of those returns is 2.5 percent—pretty good.

The problem is that because you'd hung on to the stock over the two periods, you actually ended up right where you started, with a return of zero. The stock rose to $125 at the end of period one and dropped back to $100—(20 percent of $125 is $25)—at the end of period two.

Compound return "is what you actually experience with buy and hold," Banner says. In effect, volatility is a drag on compound return when compared with average return. Mathematically, compound return is approximately equal to the average return minus one-half of the variance. (Variance, a measure of how widely a set of returns is spread around their mean, is the square of volatility.)

TIP BOX

Type **PORT <Go>** for the Portfolio & Risk Analytics function.

You can break what Banner calls the "curse of compounding" if you have more than one stock to work with. "What if you're allowed to dynamically allocate capital between two or more assets?" Banner says. The compound return of a portfolio, like that of a single asset, is the average of its returns minus one-half of its variance. Thanks to modern portfolio theory—which Nobel laureate Harry Markowitz set out in 1952—you can also describe the portfolio return as equal to the weighted average return of its constituent stocks. "Now, the plot thickens," Banner says. The individual stocks tend to have higher volatilities than the portfolio as a whole: So the average stock variance tends to be larger than the portfolio variance.

IF YOU REARRANGE the terms of a couple of equations, Banner says, you end up with an expression that shows exactly how much excess return you can get from rebalancing: It's equal to one-half times the weighted average stock variance minus the portfolio variance. "That's essentially the math formula that shows how the variances and covariances contribute to the compound return," Banner says.

Rendered with a gamma and a couple of other Greek letters, it's also the master formula of what Fernholz called stochastic portfolio theory. Fernholz originally got there by combining stochastic calculus—"that branch of math that studies changing quantities like calculus but with a probabilistic component: hence the fancy word *stochastic*," Banner says—with modern portfolio theory.

That may seem daunting. For Banner, though, it's the alternative that's difficult: picking stocks that outperform. "We know that's very hard to do," he says.

Jon Asmundsson is Strategies editor of *Bloomberg Markets*.
jasmundsson@bloomberg.net

TRACKING S&P 500 VOLATILITIES

Adrian Banner says that smart-beta ETFs that equal weight their portfolios tap into the same rebalancing gains that Intech seeks. "I believe the equal weight is demonstrably capturing exactly the same effect," he says. Banner says, though, that equal weighting is not the best way to pick up those gains. For one thing, the approach doesn't take into account the volatilities of the stocks. To analyze S&P 500 volatilities, type **VCA <Go>**. Click on Sample Views, select Correlation Basket/SPX, and type 1 <Go>. JON ASMUNDSSON

Tracking FX

MIPR <Go>
displays market-implied policy rates.

FXIP <Go>
displays real-time foreign-exchange rates, news, and data.

FX24 <Go>
graphs a selected currency across major trading centers during a 24-hour period.

FXFA <Go>
displays implied yields from FX forwards.

IDEA FX <Go>
lets you send, receive, and track FX trading ideas.

DES <Go>
displays regime details and liquidity information for a selected currency.

SDR FX <Go>
displays FX nondeliverable forwards and options trades reported to swap data repositories.

SDRV <Go>
summarizes SDR trading volume data.

FRD <Go>
lets you monitor and price currency forwards.

FXGO <Go>
displays information on Bloomberg's electronic-trading platform for foreign exchange, deposits, and precious metals.

ALLQ BBO <Go>
displays the best bid and offer for a selected currency pair.

HWIZ <Go>
enables you to compare currency-hedging strategies.

XDSH <Go>
lets you create and display a variety of FX market views.

ALRT FX <Go>
enables you to create and manage alerts on FX prices, SDR trades, and fixings.

↑ **OVDV <Go>**
lets you view the volatility surface and implied correlations for selected currencies.

OVML <Go>
lets you price FX options.

FXSW <Go>
enables you to create, customize, and backtest FX trading strategies.

FXFC <Go>
lets you access FX forecasts and rank forecasters.

OVRA <Go>
enables you to analyze risk for a selected FX options portfolio.

BFIX <Go>
displays Bloomberg BGN fixings for a selected currency pair.

RES FX <Go>
displays FX research.

FXFM <Go>
calculates probabilities for a selected currency pair's trading range based on options prices.

OMST <Go>
plots options trades reported to SDRs across expirations and strikes.

WVOL <Go>
displays a matrix of implied volatilities.

VOLC <Go>
compares implied and realized volatilities.

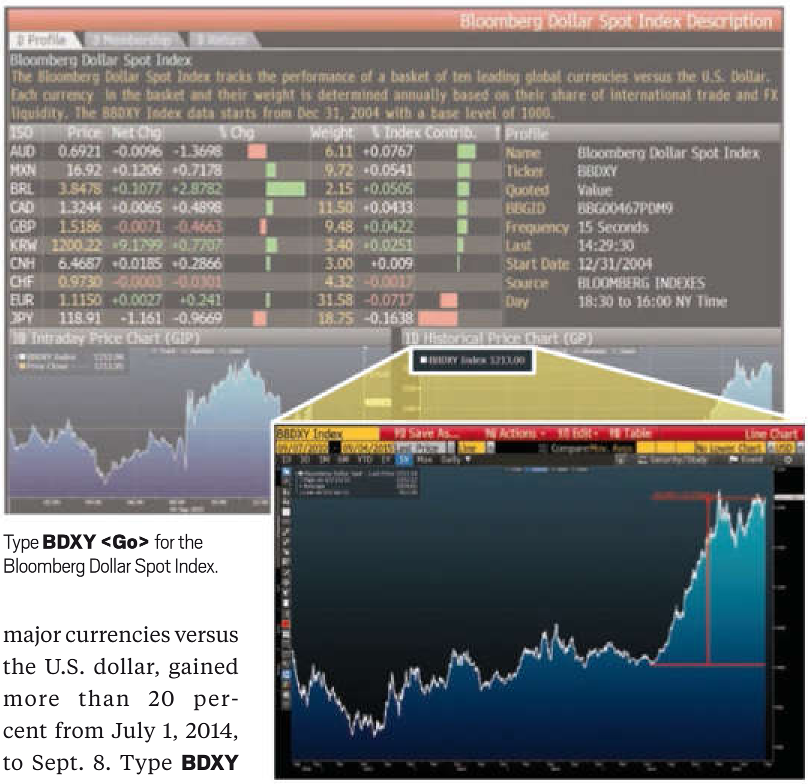
Compiled by
JON ASMUNDSSON
jasmundsson@bloomberg.net

Coping With a Rising Dollar

BY FABIO MORETTA AND MAURIZIO LUISI

AS THE U.S. Federal Reserve starts raising rates, appreciation of the dollar likely will be the main channel through which the rest of the world feels the effects.

The dollar, of course, has already been strengthening. The Bloomberg Dollar Spot Index, a benchmark that tracks the performance of a basket of 10



Type **BDXY <Go>** for the Bloomberg Dollar Spot Index.

major currencies versus the U.S. dollar, gained more than 20 percent from July 1, 2014, to Sept. 8. Type **BDXY <Go>** on the Bloomberg Professional service for a description of the index.

With the U.S. and the U.K. on the verge of tightening, Europe and Japan continue to ease rates. That divergence in central bank policies will likely produce more gyrations in global equity markets.

In Europe, investor expectations for the European Central Bank's quantitative easing program have supported stock markets this year. The Euro Stoxx 50 Index was up 3.3 percent this year through Sept. 8—in euro terms. The drop in the European currency against the dollar—the euro weakened 7.7 percent through Sept. 8—cut into returns for some investors, however. One upshot: A record number of Asian, U.S., and U.K. investors have hedged exposure to the single currency.

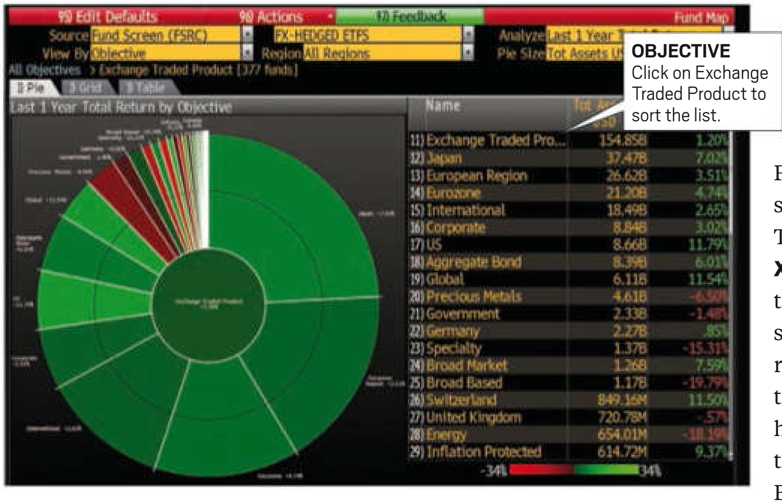
TRADERS ARE reviving bets on euro weakness as wagers on monetary policy divergence supplant worries about the future of Greece in the single currency.

The declining euro has been a boon for exchange-traded funds that hedge currency risk. With the euro slumping in March to $1.04, its lowest level in more than a decade, investors directed a considerable flow of money into U.S. dollar–based ETFs that invest in stocks across Europe and protect against currency fluctuations.

You can use the Fund Screening (FSRC) function to find funds that hedge currency risk. Type **FSRC**

TIP BOX

Type **ETF <Go>** for the Exchange Traded Funds function.



Type **FMAP <Go>** to analyze a set of FX-hedged ETFs.

<Go>, tab in to the field, enter *ETF*, and click on the Exchange Traded Funds item in the list of top matches. Next, enter *CURRENCY HEDGE* in the field and click on the Currency Hedged Indicator item. Select = Equal To and then select Y, and press <Go>. The screening criteria turned up 429 ETFs as of Sept. 8. To add a data item that shows the geographical focus of the funds, enter *GEOGRAPHICAL* in the field, click on the Fund Geographical Focus item, select No Condition, Display Only, and press <Go>. Click on the Results button.

TO FURTHER ANALYZE these funds, first save the search. Click on the Actions button on the red tool bar and select Save As. Enter a name, such as *FX-HEDGED ETFS*, in the NAME field and type <Go> 1 <Go>.

You can then use the Fund Map (FMAP) function to examine that set of ETFs and dig into their returns or other metrics. Type **FMAP <Go>**. Click on the arrow to the right of Source and select Fund Screen (FSRC). Click on the next arrow to the right, select your saved search, and press <Go>.

You can then use FMAP to slice and dice the set of hedged ETFs in a variety of ways. To see which countries and regions have attracted the most hedged-ETF investment, for example, click on the arrow to the right of View By, select Objective if it isn't already selected, and press <Go>. Next, on the right side of the screen, click on Exchange Traded Product under Name. Almost one-quarter of the assets in hedged ETFs were focused on Japan, while 17 percent were focused on the European region and 14 percent on the euro zone.

To track flows into currency-hedged ETFs, you can use the Fund Flow Top Down Analysis sample spreadsheet. To download it, type **XLTP XMFF <Go>** and click on the Open button. Using the spreadsheet for a set of Europe-focused ETFs showed that currency-hedged funds had inflows of $20 billion this year through Sept. 8. By contrast, nonhedged Europe ETFs had inflows of only $8.7 billion.

Those figures show that while international investors have poured money into European stock ETFs, they've sought to limit exposures to euro volatility. The trend has also spurred the creation of additional vehicles from a number of issuers.

The single ETF that attracted the most money in the year through Sept. 8 was the $19.6 billion WisdomTree Europe Hedged Equity Fund. The fund had inflows of almost $19 billion during the period. Type **HEDJ US <Equity> EFMF <Go>** to display money flow for the fund.

Type **EFMF <Go>** to chart money flow for a selected ETF.

Fabio Moretta is on the staff of the Sales department at Bloomberg in London. fmoretta@bloomberg.net Maurizio Luisi is an equity market specialist in London. mluisi4@bloomberg.net

Spotting Opportunities in the Oilpatch Rout

BY SEAN CASEY

THE COLLAPSE OF energy prices has meant pain for many oil and gas companies.

During the 12 months through Sept. 8, the price of West Texas Intermediate crude plunged 50.4 percent, making it the second-worst-performing commodity futures contract. The worst performer was Brent crude, which lost 50.6 percent over the period. To chart the Bloomberg European Dated Brent Forties Oseberg Ekofisk (BFOE) price, type **EUCRBRDT <Index> GP <Go>** on the Bloomberg Professional service.

Type **MOV <Go>** to analyze historical movers in a selected index.

For companies that produce oil, plummeting crude prices can translate into declining revenues and profits—and falling stock prices. In the Bloomberg European 500 Index, energy was among the worst-performing groups during the past year, dropping 23 percent in the 12 months ended on Sept. 8.

Amid the carnage, though, there may be buying opportunities. To identify companies that may be insulated from commodity price swings, for example, you can use the Supply Chain Analysis (SPLC) function.

Let's start with a major energy producer and take a look at how its struggles are affecting suppliers. To see the biggest movers in the Bloomberg Europe 500 Gas & Oil Index, type **BEGAS <Index> MOV <Go>** for the Equity Index Movers function. To track performance during the past year, click on the Historical Movers button on the red tool bar. Click on the arrow to the right of the field below Date Range and select 1 Year if it isn't already selected. Click on the Generate Report button.

To see the report, type **RPT <Go>** and click on it. Sorted by index points, which measure how much a stock moved the index, the list shows Royal Dutch Shell is the biggest laggard. The company's 33 percent stock price decline in the 12 months ended on Sept. 8 shaved 23 points off the industry benchmark, more than any other company.

TO GRAPH SHELL'S shares, type **RDSA LN <Equity> GP <Go>**. Click on 5Y for a five-year chart. Shell's shares peaked in September 2014 and then fell with the oil price plunge.

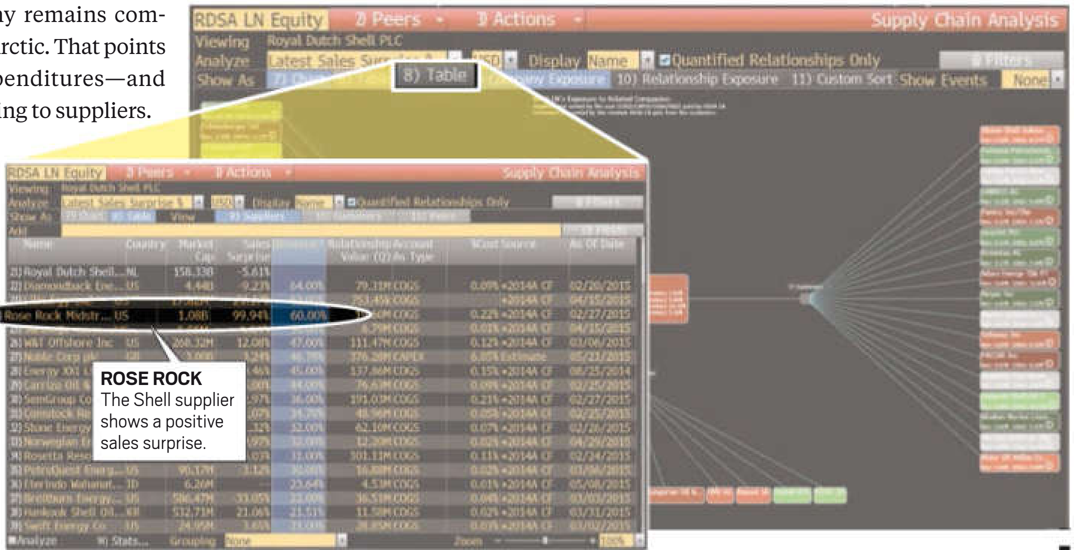
Even with the drop in commodity prices, Shell has continued to invest, though. Type **FA <Go>** for the Financial Analysis function. Click on the C/F tab for cash flow analysis. In the second quarter, Shell reported \$6.2 billion in capital expenditures. In addition, an Aug. 5 Bloomberg News story on Shell

TIP BOX

Type **CPLY <Go>** for the Commodity Playbook function.

reported that the company remains committed to exploring in the Arctic. That points to continued capital expenditures—and potentially more cash flowing to suppliers.

To analyze suppliers, type **SPLC <Go>** for the Supply Chain Analysis function. Type 8 <Go> for the table view and click on Suppliers if it isn't already selected.



Type **SPLC <Go>** to analyze the suppliers of a selected company.

This table view shows a list of Shell's suppliers, their quantified revenue from Shell, and other metrics. Click on the arrow to the right of Analyze and select Latest Sales Surprise % if it isn't already selected. Next, click on the %Revenue column heading to sort the list of companies by the proportion of their revenue that they get from Shell.

THE ADJACENT Sales Surprise column shows how much each company's revenue exceeded or trailed analysts' consensus in the most recent period. One of Shell's larger suppliers jumps out here: Rose Rock Midstream reported sales almost 100 percent higher than analyst expectations.

Type **RV <Go>** to compare a selected company with peers.

The Tulsa, Oklahoma–based master limited partnership, which operates crude oil pipelines and storage, gets 60 percent of its revenue from Shell. Considering that Shell appears to be continuing to invest, Rose Rock Midstream might be a good candidate to dig into further.

To do that, click on the MLP's name. In the Related Functions window that appears, click on Relative Valuation to compare Rose Rock with peers. As of Sept. 8, the company had the lowest estimated price-earnings ratio—17.36—of its Bloomberg peers. Its sales growth was above average.

To view ratings, click on the Credit tab. Rose Rock has a B+ rating from Standard & Poor's and a Ba3 from Moody's Investors Service. The non-investment-grade ratings, while not a positive indicator, appear to be in line with industry competitors.

To select other metrics to display, click on the Custom tab. To compare consensus analyst recommendations, enter *RECOMMENDATION* in the ADD COLUMN field, click on Recommendation Consensus and press <Go>. As of Sept. 8, Rose Rock's rating was 4.27, better than the peer group's average of 4.14. Type **ANR <Go>** for the Analyst Recommendations function. Rose Rock had seven buy ratings and four holds as of that date.

For more information and research on the oil and gas services and equipment industry, type **BI SERV <Go>** for Bloomberg Intelligence's dashboard.

Sean Casey is on the staff of the Global Data department at Bloomberg in Princeton. scasey36@bloomberg.net

CURRENCY: TO HEDGE OR NOT TO HEDGE?

Free LiveINSIGHTS Web Conference

Thursday, October 8, 12:00 pm ET

Register at NSYT <GO> or www.bloombergmarkets.com/liveinsights

The recent shock devaluation of the Chinese Yuan shows again the risks posed by currency exposure – and why currency hedged ETFs have become such hot products, with nearly $40 billion in inflows through the first half of 2015. With currency volatility driving international markets, hedging comes with its opportunities as well as its perils. How can these ETFs help manage risk, and what pitfalls should investors be aware of?

Join this LiveINSIGHTS web conference where investors will come away with a better understanding of what exactly currency hedged ETFs can offer, their risk and return profile, and why these products have been an effective solution for 2015.

SPEAKERS

HEIDI RICHARDSON
Managing Director
Head of U.S. Investment Strategy
iShares

MATT HOUGAN
CEO
ETF.com

KENNETH A. FROOT
Professor of Business Administration
Harvard Business School

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Bloomberg Markets

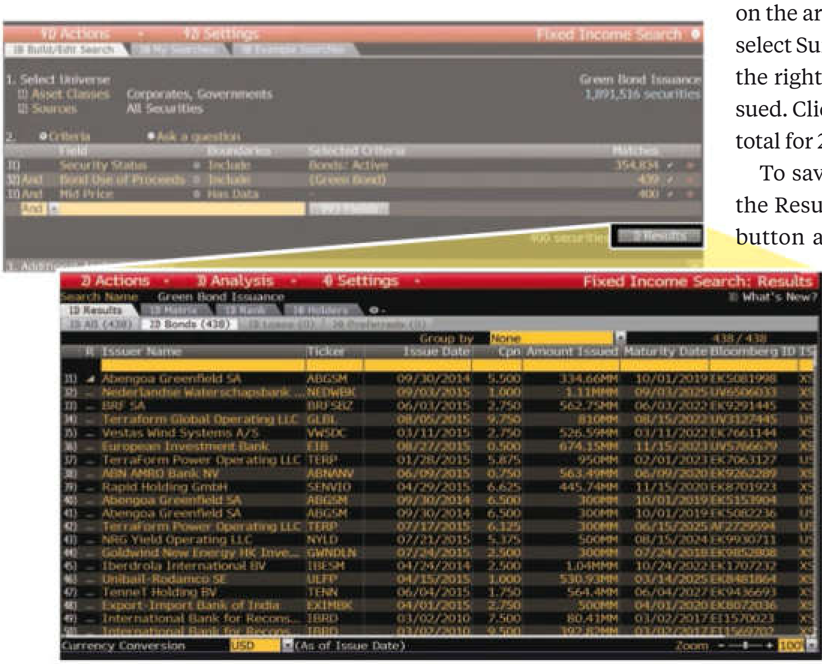
Picking Up Yield With Green Bonds

BY LANCE HORSTMANN

THE GREEN BOND market has grown significantly since the European Investment Bank and the World Bank first sold such instruments in 2007. With both governments and corporations issuing the securities to raise funds for environmentally friendly projects, sales topped $31 billion last year. Issuance this year could potentially surpass that record.

One of the biggest challenges in the market remains determining exactly what makes a green bond. Bloomberg's definition, adopted from the Green Bonds Principles framework and other analysis, is this: Green bonds are fixed-income instruments whose proceeds are used for projects or activities that promote climate-change mitigation or adaptation or other environmental sustainability purposes.

Type **SRCH @GREEN <Go>** to generate a list of active green bonds.



Securities that fit that definition are labeled as green bonds on the Bloomberg Professional service. You can use the Fixed Income Search (SRCH) function to dig into the universe of green bonds and potentially identify investment opportunities. You can then use the optimizer in the Portfolio & Risk Analytics (PORT) function to see how adding green bonds to a portfolio may improve overall performance and risk.

FOR THE UNIVERSE of green bonds, type **SRCH @GREEN <Go>**. As of Sept. 8, the search identified 439 bonds. To ensure that pricing data is available, enter *PRICE* in the field, click on Mid Price, and select Has Data. Click on the Results button.

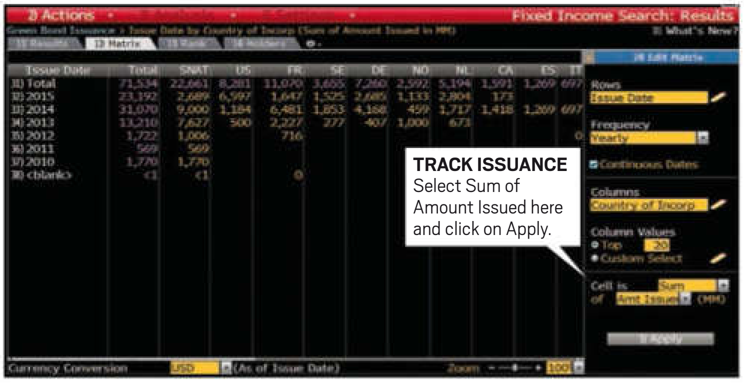
To track issuance by year, first click on the Matrix tab. In the lower-right corner of the screen, click on the arrow to the right of Cell Is and select Sum. Next, click on the arrow to the right of Of and select Amount Issued. Click on Apply. As of Sept. 8, the total for 2015 was $23.2 billion.

To save the list of bonds, click on the Results tab. Click on the Actions button and select Export to Portfolio. Enter a name such as *GREEN BONDS*, press <Go>, and click on Create. The Green Bonds portfolio will be shown in the Portfolio Display (PDSP) function.

Now you can examine how including green bonds would affect your portfolio. For the sake of example, let's take a look at the DoubleLine

TIP BOX

Type **BNEF 15 <Go>** for a guide to green bonds on Bloomberg.



Click on the Matrix tab to track issuance by year.

Core Fixed Income Fund, a top-performing U.S. mutual fund that invests in a mixture of corporates, Treasuries, munis, and mortgage-backed bonds. Type **DBLFX US <Equity> PORT /P <Go>**. Click on the Trade Simulation button and select Launch Optimizer.

TO BEGIN, CLICK on the arrow to the right of Risk Model and select Fixed Income. The Portfolio Optimization screen has four sections: The first lets you set goals, the second enables you to specify lists of securities you want to trade from, the third lets you set constraints, and the fourth lets you select security-level properties.

In the Goals section, let's aim to increase yield to maturity. Click on the Add Goal button. Enter *YIELD TO MATURITY* in the SEARCH field, press ‹Go›, and click on the item under Select Field. Then click on the Select button. Delete any other tasks in the Goals section.

In the Trade Universes section, click on the arrow to the right of Trade List and select No Buy List, so the optimizer won't suggest increasing investments in bonds already in the portfolio. Next, click on Add Universe. Select Trade List under Rule, Portfolio under Source, and the Green Bonds portfolio under Security List. Press ‹Go›.

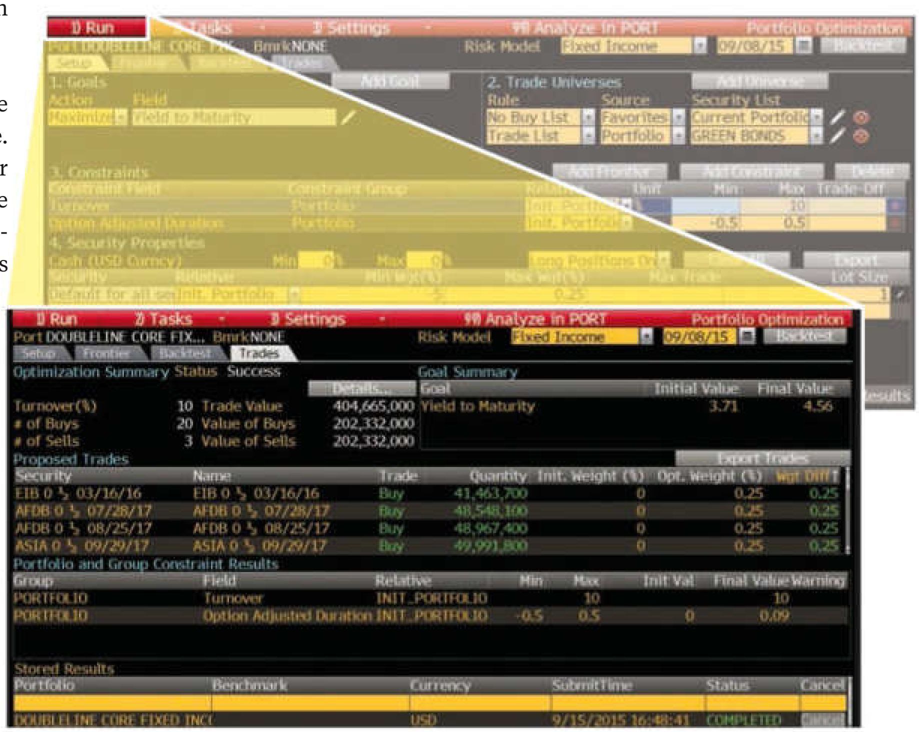
In the Constraints section, enter *10* in the MAX field to limit turnover to 10 percent of the portfolio. Next, to limit changes in the portfolio's option-adjusted duration, click on Add Constraint. Enter *OPTION* in the SEARCH field, press ‹Go›, and click on Option Adjusted Duration under Select Field.

Click on the arrow to the right of Relative and select Init. Portfolio. Enter *-0.5* in the MIN field and *0.5* in the MAX field and click on Add Constraint.

On the Security Properties section's Cash line, enter *0* in the MAX field. On the next line, enter *0.25* in the MAX WGT(%) field.

Those settings will use green bonds to maximize the yield to maturity of the portfolio, with a similar option-adjusted duration. Click on the Run button.

The results screen displays the suggested buys of green bonds and sales of the bonds from the underlying portfolio. Those trades would increase



the yield to maturity to 4.56 percent, from 3.71 percent, and raise the option-adjusted duration only 9 basis points.

To analyze the hypothetical portfolio, click on the Analyze in PORT button.

Type **PORT <Go>**, click on Trade Simulation, and select Launch Optimizer to run an optimization.

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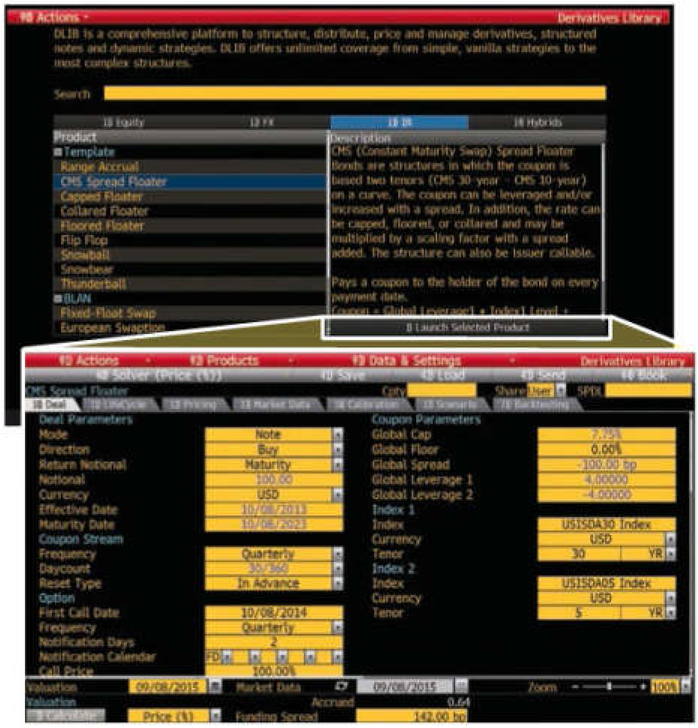
Q: How can I price a structured note?



A: You can use the recently enhanced Derivatives Library platform. DLIB lets you create, price, and risk-manage structured notes, as well as over-the-counter derivatives and strategies. Let's say you wanted to analyze a structured note that would enable you to bet on a steepening of the U.S. yield curve. Type **EJ8624938 <Corp> DES <Go>** on the Bloomberg Professional service, for example, for a description of a leveraged constant-maturity-swap-spread note issued by Citigroup in 2013. The note, which pays a quarterly coupon of four times the difference between the 30-year U.S. swap rate and the five-year rate minus 0.25 percent, in effect lets you bet on long-term rates rising more than short-term ones. To price the note, type **DLIB <Go>**. Click on the IR tab and then on CMS Spread Floater under Product on the left side of the screen. Then click on Launch Selected Product. For a video that demonstrates how to enter the details of this particular deal into DLIB, type **DLIP <Go>** on another Bloomberg screen. Click on Demos & Webinars, scroll down to Deconstructing the Deal: CMS Spread Floater, and click on the video link.

SCOPING OUT STRUCTURED NOTES

DLIP <Go> provides more information about Derivatives Library.

BRIEF <Go> lets you subscribe to the *Structured Notes* newsletter.

NI STN <Go> displays headlines of news stories on structured notes.

MARS <Go> lets you analyze portfolios that include structured notes.

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—John Maresca, Financial Director

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